Virginia Title V Operating Permit

Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300 of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	J. W. Fergusson & Sons, Inc.
Facility Name: Facility Location:	J. W. Fergusson & Sons, Inc. 4107 Castlewood Road Richmond, Virginia
Registration Number: Permit Number:	50224 PRO50224

Effective Date – January 9, 2003
Expiration Date – November 15, 2007

Robert G. Burnley
Director, Department of Environmental Quality

_____
Signature Date

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I. Facility Information

Permittee
J. W. Fergusson & Sons, Inc.
4107 Castlewood Road
Richmond, VA 23234

Responsible Official
Frank Daly
Vice President & General Manager

Facility
J. W. Fergusson & Sons, Inc.
4107 Castlewood Road
Richmond, VA 23234

Contact person
Winston Harmon
Manager, Facility Engineer
(804) 275-4410

AIRS Identification Number: 51-760-0093

Facility Description: SIC Code 2754 -

J. W. Fergusson & Sons, Inc. operates a rotogravure printing facility in Richmond, Virginia. Emission units include 6 rotogravure presses (Presses No. 1 through 6) each with 7-8 application stations and a gas-fired or steam-heated dryer. All of the presses are contained within permanent total enclosures, with Presses 1 & 2 venting to a catalytic afterburner, and Presses 3-6 vented to a carbon adsorption system. These presses are subject to 40 CFR 63 Subpart KK.

The facility operates two (2) automated parts washing systems with fugitive emissions (PRI and Renzmann), and a chrome plating operation for re-plating of engraved cylinders. The chrome plating baths are subject to 40 CFR 63 Subpart N and are vented to a composite mesh-pad system. Two natural gas-fired boilers rated at 10.5 MMBtu/hr provide heat and steam for the facility.

II. Emission Units

Equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity	Pollution Control Device Description (PCD)	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
21	002	Cleaver Brooks Model No. CB700X-250 1982	10.5 MMBtu/hr				8/11/82 Note: This permit was superseded, but there is no other permit which mentions the boilers.
22	003	Cleaver Brooks Model No. CB700X-250 1982	10.5 MMBtu/hr				8/11/82
Rotogravure Presses 1-6 and Floor washing							
01	006A 006B	Rotogravure Press No. 1 27", 7-station Champlain press 1988	315 lbs/hr	Catalytic Incinerator TEC Quantum 2000 1991	95% design	VOC/HAP	10/29/99
02	006A 006B	Rotogravure Press No. 2 38", 8-station Champlain press 1970	315 lbs/hr solvent input	Catalytic Incinerator TEC Quantum 2000 1991	95% design	VOC/HAP	10/29/99

03	005A 005B	Rotogravure Press No. 3 38", 8-station Champlain press 1974	315 lbs/hr solvent input	Carbon Adsorber M & W Solvent Recovery System 1982	98% design	VOC/HAP	10/29/99
04	005A 005B	Rotogravure Press No. 4 38", 8-station Champlain press 1977	315 lbs/hr solvent input	Carbon Adsorber M & W Solvent Recovery System 1982	98% design	VOC/HAP	10/29/99
05	005A 005B	Rotogravure Press No. 5 38", 8-station Champlain press 1981	315 lbs/hr solvent input	Carbon Adsorber M & W Solvent Recovery System 1982	98% design	VOC/HAP	10/29/99
06	005A 005B	Rotogravure Press No. 6 16", 8-station Chestnut press 1987	175 lbs/hr solvent input	Carbon Adsorber M & W Solvent Recovery System 1982	98% design	VOC/HAP	10/29/99
08	006A 006B	Floor Washing PTE Presses 1 & 2 1970	2 gallons/hr solvent	Fugitive	N/A	N/A	10/29/99
09	005A 005B	Floor Washing PTE Presses 3, 4, 5 & 6 1974	4 gallons/hr solvent	Fugitive	N/A	N/A	10/29/99
Progressive Recovery, Inc. Automated Parts Washing System							
07	008	Progressive Recovery, Inc. SWS-400 Automated Parts Washing System 1995	2 wash cycles/hr	fugitive	N/A	N/A	10/29/99

Renzmann Automated Parts Washing System							
10	009	Renzmann Type 300 Automated Parts Washing System 1987	1 wash cycle/hr	fugitive	N/A	N/A	10/29/99
Make-Ready Room							
11		Make Ready Room Manual Cylinder Wash Station Doctor Blade Wash Tank	N/A	fugitive	N/A	N/A	10/29/99
Chrome Plating							
30	010	Chrome Plating Bath 1989	1 cylinder/hr	Composite Mesh-Pad Mist Eliminator Viron Model VCS-2626-PVC-2-3/M-C-99.8	99.8% design	Chromium	

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III. Fuel Burning Equipment Requirements - (EU ID#21 & 22)

A. Limitations

1. The approved fuel for the two Cleaver Brooks boilers (EU ID #21 & #22) is natural gas. A change in the fuels may require a permit to modify and operate.
(9 VAC 5-80-110)

2. The Cleaver Brooks boilers (EU ID #21 & #22) shall consume no more than 183 million cubic feet of natural gas per year combined, calculated as the sum of each consecutive twelve (12) month period.
(VAC 5-80-110)

3. Combined emissions from the operation of the Cleaver Brooks boilers (EU ID #21 & #22) shall not exceed the limits specified below:

Nitrogen Oxides (as NO_2)	2.1 lbs/hr	9.2 tons/yr	(9 VAC 5-50-260)

Annual emissions are calculated as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110)

4. Visible emissions from each of the Cleaver Brooks boiler stacks shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 30 percent opacity.
(9 VAC 5-50-80 and 9 VAC 5-80-110)

5. Boiler emissions shall be controlled by proper operation and maintenance. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum.
(9 VAC 5-80-110)

B. Monitoring and Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

   a. The yearly throughput of natural gas to the boilers (EU ID #21 & 22) calculated as the sum of each consecutive 12-month period (i.e. the 12-month rolling total).

   b. Monthly emission calculations for the boilers (EU ID #21 & 22) as well as emission factors, rated capacities, fuel characteristics, and formulas used to calculate the emissions from each boiler, and the maximum hourly throughput of fuel to each boiler.

c. Operating procedures, maintenance schedules, and service records for each boiler (EU ID #21 & 22).

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.
(9 VAC 5-80-110 E)

2. The permittee shall maintain records of the required training including a statement of time, place and nature of training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boiler. These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.
(9 VAC 5-80-110)

C. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
NOx	EPA Method 7 or as required by DEQ
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

IV. Process Equipment Requirements - (Rotogravure Presses Nos. 1 & 2 -- EU ID#01, 02 & 08)

A. Limitations

1. VOC emissions from the operation and cleaning of presses 1 and 2, including floor washing, shall be captured by a permanent total enclosure and controlled by a catalytic incinerator having a destruction efficiency of at least 95% on a mass basis. The emission control system shall be provided with adequate access for inspection.
(9 VAC 5-80-10 H, Condition 6 of the 10/29/99 NSR permit)

2. The daily overall VOC control efficiency for each press (Nos. 1 & 2) shall equal or exceed 95%.
(9 VAC 5-50-260, Condition 8 of the 10/29/99 NSR permit)

3. The permittee shall demonstrate compliance with 40 CFR 63 Subpart KK by operating a capture system and control device (catalytic oxidizer) for presses 1 and 2, and demonstrating an overall HAP control efficiency of at least 95 percent for each month.
(40 CFR 63.825)

4. The annual throughput of solvent VOC to be used for press cleaning and floor washing within the Press 1 and Press 2 permanent total enclosure shall not exceed 9 tons per year, calculated monthly as the sum of the throughput for the previous consecutive 12 months.
(9 VAC 5-80-110, Condition 12 of the 10/29/99 NSR permit)

5. Cleaning of presses and floors within the enclosure shall only be conducted when the catalytic incinerator is in operation and in compliance with a 95% daily control efficiency.
(9 VAC 5-80-110, Condition 13 of the 10/29/99 NSR permit)

6. VOC emissions from the operation of each of the presses, including press cleaning and floor washing, shall not exceed the limitations specified below:

Press Number	pounds/day[1]	tons/yr[2]
1	450	30.0
2	480	30.0
Press Nos. 1 & 2 Enclosure Press Cleaning and Floor Washing	2.2 lbs/day[1]	0.4 tons/yr[2]

(9 VAC 5-50-260 of State Regulations, Condition 9 of the 10/29/99 NSR permit)

[1]daily
[2]annual emissions, calculated monthly as the sum over the previous consecutive 12 month period

7. Except where this permit is more restrictive than the applicable requirement, the rotogravure presses (EU ID No. 1 & 2) shall be operated in compliance with 40 CFR 63 Subpart KK.
(9 VAC 5-60-60 and 9 VAC 5-60-70)

8. HAP emissions shall be limited to no more than five percent of organic HAP applied for the month.
(40 CFR 63.825)

9. The permittee shall submit a plan to demonstrate continuous compliance with Condition IV.A.8 in accordance with the following requirements. The permittee shall:

   a. Submit to the Director, Piedmont Regional Office with the compliance status report required by § 63.9(h) of the 40 CFR 63 General Provisions, a plan that:

      1) Identifies the operating parameter to be monitored to ensure that the capture efficiency measured during the initial compliance test is maintained.

      2) Discusses why this parameter is appropriate for demonstrating ongoing compliance, and

      3) Identifies the specific monitoring procedure.

   b. Set the operating parameter value, or range of values, that demonstrate compliance with Condition IV.A.8, and

   c. Conduct monitoring in accordance with the plan submitted to the Director, Piedmont Regional Office unless comments received from the Director, Piedmont Regional Office require an alternate monitoring scheme.

   (40 CFR 63.828(a)(5))

10. J. W. Fergusson & Sons, Inc. shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. The plan shall identify all routine or otherwise predictable control and monitoring system malfunctions. This plan shall be developed by the permittee by the source's compliance date for that relevant standard. The plan shall be incorporated by reference into the source's Title V permit (see Appendix A to this permit).
(40 CFR 63.9(e)(3))

11. The facility shall be subject to the General Provisions (Subpart A) of 40 CFR 63 as outlined in the table below:

Table 1 to Subpart KK of 40 CFR 63: General Provisions Applicability to Subpart KK

Reference	Applies to Subpart KK	Comment
63.1(a)(1)-(a)(4)	Yes.	
63.1(a)(5)	No.	Section reserved.
63.1(a)(6)-(a)(8)	No.	
63.1(a)(9)	No.	Section reserved.
63.1(a)(10)-(a)(14)	Yes.	
63.1(b)(1)	No.	Subpart KK specifies applicability.
63.1(b)(2)-(b)(3)	Yes.	
63.1(c)(1)	Yes.	
63.1(c)(2)	No.	Area sources are not subject to Subpart KK.
63.1(c)(3)	No.	Section reserved.
63.1(c)(4)	Yes.	
63.1(c)(5)	No.	
63.1(d)	No.	Section reserved.
63.1(e)	Yes.	
63.2	Yes.	Additional definitions in Subpart KK.
63.3(a)-(c)	Yes.	
63.4(a)(1)-(a)(3)	Yes.	
63.4(a)(4)	No.	Section reserved.
63.4(a)(5)	Yes.	
63.4(b)-(c)	Yes.	
63.5(a)(1)-(a)(2)	Yes.	
63.5(b)(1)	Yes.	
63.5(b)(2)	No.	Section reserved.
63.5(b)(3)-(b)(5)	Yes.	
63.5(c)	No.	Section reserved.
63.5(d)	Yes.	
63.5(e)	Yes.	
63.5(f)	Yes.	
63.6(a)	Yes.	
63.6(b)(1)-(5)	Yes.	
63.6(b)(6)	No.	Section reserved.
63.6(b)(7)	Yes.	
63.6(c)(1)-(2)	Yes.	
63.6(c)(3)-(c)(4)	No.	Sections reserved.
63.6(c)(5)	Yes.	
63.6(d)	No	Section reserved.
63.6(e)	Yes.	Provisions pertaining to start-ups, shutdowns, malfunctions, and CMS do not apply unless add-on control system is used.
63.6(f)	Yes.	
63.6(g)	Yes.	
63.6(h)	No.	Subpart KK does not require COMS.
63.6(i)(1)-(i)(14)	Yes.	
63.6(i)(15)	No.	Section reserved.
63.6(i)(16)	Yes.	
63.6(j)	Yes.	
63.7	Yes.	
63.8(a)(1)-(a)(2)	Yes.	
63.8(a)(3)	No.	Section reserved.
63.8(a)(4)	No.	Subpart KK specifies the use of solvent recovery devices or

		oxidizers.
63.8(b)	Yes.	
63.8(c)(1)-(c)(3)	Yes.	
63.8(c)(4)	No	Subpart KK specifies CMS sampling requirements.
63.8(c)(5)	No.	Subpart KK does not require COMS
63.8(c)(6)-(c)(8)	Yes.	Provisions for COMS are not applicable.
63.8(d)-(f)	Yes.	
63.8(g)	No.	Subpart KK specifies CMS data reduction requirements
63.9(a)	Yes.	
63.9(b)(1)	Yes.	
63.9(b)(2)	Yes.	Initial notification submission date extended.
63.9(b)(3)-(b)(5)	Yes.	
63.9(c)-(e)	Yes.	
63.9(f)	No.	Subpart KK does not require opacity and visible emissions observations.
63.9(g)	Yes.	Provisions for COMS are not applicable.
63.9(h)(1)-(3)	Yes.	
63.9(h)(4)	No.	Section reserved.
63.9(h)(5)-(6)	Yes.	
63.9(i)	Yes.	
63.9(j)	Yes.	
63.10(a)	Yes.	
63.10(b)(1)-(b)(3)	Yes.	
63.10(c)(1)	Yes.	
63.10(c)(2)-(c)(4)	No.	Sections reserved.
63.10(c)(5)-(c)(8)	Yes.	
63.10(c)(9)	No.	Section reserved.
63.10(c)(10)-(c)(15)	Yes.	
63.10(d)(1)-(d)(2)	Yes.	
63.10(d)(3)	No.	Subpart KK does not require opacity and visible emissions evaluations.
63.10(d)(4)-(d)(5)	Yes.	
63.10(e)	Yes.	Provisions for COMS are not applicable.
63.10(f)	Yes.	
63.11	No.	Subpart KK specifies the use of solvent recovery devices or oxidizers.
63.12-63.15	Yes.	

(9 VAC 5-60-90)

12. The permanent total enclosures shall meet the following criteria:

    a. Any natural draft openings shall be at least 4 equivalent opening diameters from each VOC emitting point;

    b. The total area of all natural draft openings shall not exceed 5 percent of the surface area of the enclosure's four walls, floor, and ceiling;

    c. The average facial velocity of air through the natural draft openings shall be at least 200 feet per minute and the direction of flow shall be into the enclosure (or, if differential pressure is measured, the pressure drop shall be at least .007 in. H_2O);

d. All access doors and windows shall be closed during routine operation of the press (except those which are included in determining the area of natural draft openings in IV.A.12b).

e. All of the exhaust gases from the enclosure shall be directed to the catalytic incinerator.

(9 VAC 5-80-30 F, Condition 17 of NSR permit dated 10/29/99)

13. The inlet gas stream flow rates to the catalytic incinerator shall not exceed the design capacity. However, if a greater flow rate is used during the performance test and that greater flow rate resulted in at least a 95% VOC destruction efficiency for the catalytic incinerator, and if that test is acceptable to the DEQ, the control device so tested can be operated up to that higher flow rate.
(9 VAC 5-80-10 H, Condition 24 of NSR permit dated 10/29/99)

B. Monitoring

1. Each permanent total enclosure shall be verified to meet the requirements of Condition IV.A.12 for each day that enclosed presses are in operation, by one of the following methods:

   a. A daily demonstration that the enclosure is unchanged since the last performance test of the enclosure, using test records and installed monitoring devices. The enclosure shall be considered to be unchanged if the daily enclosure air flow monitoring device recorded reading represents an enclosure facial air velocity or pressure drop that meets the requirements of Condition IV.A.12c and the enclosure openings are either in the same position as they were during the most recent performance test, or shut; or,

   b. A performance test of the enclosure using procedures for permanent total enclosures of AQP-3 and EPA Reference Method 204 (ref. 40 CFR 51, Appendix M) demonstrates that the permanent total enclosure requirements of Condition IV.A.12 are met for that day.

   Daily verification records shall be kept in a format acceptable to the DEQ (Director, Piedmont Region). If an enclosure cannot be demonstrated to meet the permanent total enclosure requirements of Condition IV.A.12, a VOC capture efficiency test on each of the enclosed presses or upon the enclosure shall be performed in accordance with AQP-3, EPA Reference Methods (ref. 40 CFR 51, Appendix M) and test procedures acceptable to the DEQ (Director, Piedmont Region) within 60 days thereafter.
   (9 VAC 5-80-10 H and 5-80-110 E, Condition 14 of NSR permit dated 10/29/99)

2. Continuing compliance with the 95% daily overall control efficiency requirement for the operation and cleaning of press units 1 and 2 and for press 1 and 2 enclosure floor washing operations shall be demonstrated as specified below:

a. The catalytic incinerator shall be in operation for all periods of printing and cleaning operations within the enclosure.

b. The press interlock (which is part of the design of the catalytic incinerator) shall be set to shut down printing operations on presses 1 and 2 whenever the inlet catalyst bed temperature (three-hour average) falls below the minimum temperature demonstrated during the most recent performance test of the catalytic incinerator that achieves at least 95% destruction efficiency. When the interlock is properly set, the last annual test of the catalyst indicates that the activity of the catalyst is within manufacturer design specifications, and the catalytic incinerator is operating, then the VOC daily destruction efficiency (DDE) of the catalytic incinerator shall be assumed to be equal to that determined in the most recent performance test; and

c. The daily overall control efficiency for each press and for press cleaning and enclosure floor washing operations shall be calculated using the daily VOC destruction efficiency of the catalytic incinerator and the VOC capture efficiency assigned to the enclosure by the most recent performance test acceptable to the DEQ (Director, Piedmont Regional Office). When the permanent total enclosure has been verified in accordance with Condition IV.B.1 to demonstrate that the requirements of Condition IV.A.11 are being met for that day, then the VOC capture efficiency (CAP) assigned to each press and to cleaning operations within the enclosure for that day shall be 100%.

(9 VAC 5-80-10 H, Condition 15 of NSR permit dated 10/29/99)

3. J. W. Fergusson & Sons, Incorporated shall calibrate, operate, and maintain monitoring devices that continuously measure and record the gas temperatures both upstream and downstream of the catalyst bed during operation of presses 1 and 2, and shall comply with the following requirements:

a. The temperature sensors shall be maintained in a location as close as possible to the catalyst bed inlet and outlet.

b. Each continuous monitoring device shall be calibrated annually and shall have an accuracy of ±1 percent of the temperature being measured in Celsius degrees or ±1 °C, whichever is greater.

c. During any performance test of the catalytic incinerator destruction efficiency, J. W. Fergusson & Sons, Incorporated shall determine and record the gas temperature both upstream and downstream of the catalyst bed.

(9 VAC 5-50-40, Condition 19 of NSR permit dated 10/29/99 and 40 CFR 63.828(a)(4)(i))

4. J. W. Fergusson & Sons, Incorporated shall calibrate, maintain, and operate according to the manufacturer's specifications an air flow monitoring device which continuously measures differential pressure drop across the enclosure boundary or which continuously measures the face velocity of air flow into the enclosure and shall comply with the following requirements:

a. A performance evaluation of the monitoring device shall be performed concurrently with each performance test of the permanent total enclosure.

b. During the concurrent performance evaluation of the air flow monitoring device, J. W. Fergusson & Sons, Incorporated shall record the measurement of the air flow monitoring device which corresponds to 200 square feet per second (or greater) of face velocity air flow into the enclosure (or, if differential pressure is measured, a pressure drop of .007 in. H_2O) and shall record the open or shut condition of all access doors, windows, and other openings in the permanent total enclosure.

c. After the most recent performance test of the enclosure demonstrates that the permanent total enclosure is in compliance with the requirements of Condition IV.A.12, J. W. Fergusson & Sons, Incorporated shall determine and record the reading of the air flow monitoring device and the open or shut condition of the enclosure openings once daily under representative operating conditions during each day in which presses within the enclosure are operated.

(9 VAC 5-80-30 H, Appendix S, Condition 21 of NSR permit dated 10/29/99)

5. J. W. Fergusson & Sons, Incorporated shall:

a. Sample and analyze the catalyst in the catalytic incinerator on an annual basis, and replace the catalyst if any such analysis reveals that the catalyst is no longer within the design specifications. J. W. Fergusson & Sons, Incorporated shall retain the records of the analyses, the design specification, and catalyst replacement and provide them to the DEQ, if requested.

b. When the catalytic incinerator is operating, record the inlet and outlet temperatures of the incinerator bed and provide those readings to the DEQ, if requested.

(9 VAC 5-20-180, Condition 23 of NSR permit dated 10/29/99)

6. Continuing compliance with VOC emission limits for each of the presses and the associated press cleaning and floor washing operations within each enclosure shall be determined as follows:

a. Compliance with daily VOC emission limits shall be determined for each calendar day in the month, within 30 days of the end of the month, by calculating:

DTE_1 and DTE_2 = Daily Total VOC emissions (mass) emitted from each of each of presses 1 and 2, to be calculated as indicated by the following formulas:

$$DTE_1 = DTU_1 \times (100\% - DOCE_1) \div 100$$

$$DTE_2 = DTU_2 \times (100\% - DOCE_2) \div 100$$

$DTE_{clean1,2}$ = Daily Total VOC Emissions (mass) from cleaning within the press 1 and 2 enclosure, calculated by the following formula:

$DTE_{clean1,2} = DTU_{clean1,2} \times (100\% - DOCE_{encl1,2}) \div 100$

DTU_1 and DTU_2 = Daily Total VOC Used (mass) at each press

$DTU_{clean1,2}$ = Daily Total VOC Used (mass) to clean presses and floors within the press 1 and 2 enclosure.

CAP_1 and CAP_2 = Capture Efficiency (%) for each of presses 1 and 2.

$CAP_{encl1,2}$ = Capture Efficiency (%) of press 1 and 2 enclosure.

$DOCE_1$ and $DOCE_2$ = Daily Overall Control Efficiency (%) for each of presses 1 and 2, as calculated by the following formulas:

$DOCE_1 = CAP_1 \times DDE \div 100$
$DOCE_2 = CAP_2 \times DDE \div 100$

$DOCE_{encl1,2}$ = Daily Overall Control Efficiency (%) for each of presses 1 and 2, as calculated by the following formula:

$DOCE_{encl1,2} = CAP_{encl1,2} \times DDE \div 100$

DDE = Daily VOC Destruction Efficiency (%) of the incinerator using the data from the most recent performance test.

b. Compliance with annual VOC limits for each press and for press cleaning and floor washing from each enclosure shall be determined monthly, within 30 days of the end of the month, by calculating the annual VOC emissions as the sum of daily VOC emissions for press operation and cleaning and floor washing within the press 1 and 2 enclosure, for the previous consecutive 12 months.

(9 VAC 5-80-10 H and 9 VAC 5-50-20, Condition 25 of NSR permit dated 10/29/99)

7. The permittee shall demonstrate compliance with the overall organic HAP control efficiency required in Condition IV.A.3. and IV.A.8. using the procedures below:

a. Demonstrate initial compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters following the procedures below:

1) Determine the oxidizer destruction efficiency (E) using the procedure in 63.827(d) of 40 CFR Part 63.

2) Determine the capture system efficiency (F) in accordance with 63.827(e)-(f) of 40 CFR Part 63.

3) Calculate the overall organic HAP control efficiency, (R), achieved using Equation 13 of 40 CFR 63.825.

4) Install, calibrate, operate and maintain the instrumentation necessary to measure continuously the site-specific operating parameters established in accordance with 63.828(a)(4)-(5) whenever a product and packaging rotogravure press is operating.

b. Presses 1 & 2 are in compliance, if the oxidizer is operated such that the average operating parameter value is greater than the operating parameter value established in accordance with 63.828(a)(4) for each three-hour period, and the capture system operating parameter is operated at an average value greater than the operating parameter value established in accordance with 63.828(a)(5) for each three-hour period, and the overall organic HAP control efficiency, R, is 95 percent or greater.

c. Any excursion from the required operating parameters which are monitored in accordance with paragraphs 40 CFR 63.828(a)(4)-(5), unless otherwise excused, shall be considered a violation of the emission standard.

(40 CFR 63.825(b)(7), 40 CFR 63.828)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrated compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

1. Daily records of DTU, DTE, CAP, and DOCE for printing operations at each press and floor cleaning operations within each enclosure, and records of DDE for the control devices as required by Condition IV.B.6.

2. Records required by “Procedures for Maintaining Records for Surface Coating Operations and Graphic Arts Printing Processes” (AQP-4):

   a. The following information shall be maintained at all times:

      1) Coating application system number.

      2) Hours of operation per day and per year.

      3) Method of application.

      4) Number and types of coats applied to the substrate.

5) Drying method.

6) Substrate type.

b. The following information for each coating shall be maintained at all times:

1) Supplier name, coater name and identification number.

2) Coating density (pounds per gallon).

3) Volatile content of coating as supplied (percent by weight).

4) Water content of coating as supplied (percent by weight).

5) Exempt solvent content of coating as supplied (percent by weight).

6) Solids content of coating as supplied (percent by volume).

7) Name of diluent added, if any.

8) Identification number of diluent.

9) Diluent volatile organic compound density (pounds per gallon).

10) Volatile organic compound content of diluent (percent by weight).

11) Exempt solvent content of diluent (percent by weight).

c. The following information for each coating application system shall be maintained on a daily basis:

1) Coating application system number.

2) Time period of each application run.

3) Coating identification number.

4) Amount of coating used.

5) Diluent and cleanup solvent identification numbers.

6) Amount of diluent used.

7) Amount of cleanup solvents used.

8) Calculated volatile organic compound emissions.

d. The following records shall be maintained for the catalytic oxidizer:

1) Control device identification number and model number.

2) Manufacturer.

3) Installation date.

4) Coating application systems controlled.

5) Whether or not the control device is always in operation when the system is serves is in operation.

6) Type of control device.

7) Destruction or removal efficiency.

8) Date tested.

9) Design exhaust gas temperature (degrees Fahrenheit), design temperature rise across catalyst bed (degrees Fahrenheit), and anticipated frequency of catalyst change.

10) Emission test results, including inlet volatile organic compound concentration (parts per million), outlet VOC concentration (parts per million), method of concentration determination, and date of determination.

11) Type and location of capture system.

12) Capture efficiency (percent).

3. Monthly records of annual VOC emissions from the operation of each of the presses, and annual VOC emissions from press cleaning and floor washing operations within each enclosure.

4. Daily records of enclosure verifications.

5. Continuous monitoring device data and calibrations.

6. The total number of days, if any, for which the permanent total enclosures could not be verified using installed monitoring devices and test records while the presses were in operation or being cleaned, or while the enclosure floors were being washed.

7. Any instances of operation or cleaning of the enclosed presses, or of floor washing within the enclosures, without the associated control device being in operation.

8. The total number of hours, if any, during which each control device monitoring sensor and system was malfunctioning or not in operation while presses monitored by that sensor or system were in operation.

9. Total number of days that compliance was not achieved with Conditions IV.A.2 and IV.A.6, if any, and total tons of excess emissions from each source for each day not in compliance with those conditions.

10. Records needed to demonstrate compliance with 40 CFR 63 Subpart KK standards; these records may include material usage, HAP usage, volatile matter usage, and solid usage. These records may also include continuous emission monitor data (temperature and facial velocity or pressure drop), and control device data.

11. A written copy of the facility's startup, shutdown, and malfunction plan (see Appendix A to this permit). (If the plan is revised, J. W. Fergusson shall keep previous, (i.e., superseded) versions of the startup, shutdown, and malfunction plan on record).

12. Records of all maintenance performed on the enclosures and ductwork, catalytic oxidizer, and monitoring equipment.

13. Records of the occurrence, duration, and cause (if known) of each malfunction of the process, air pollution control equipment, and monitoring equipment.

14. Records of actions taken during periods of malfunction when such actions are inconsistent with the startup, shutdown and malfunction plan (Appendix A to this permit).

15. Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the startup, shutdown and malfunction plan (Appendix A to this permit).

16. Test reports documenting results of all performance tests.

17. All measurements as may be necessary to determine the conditions during the performance tests.

18. All documentation supporting the notifications and reports required by 40 CFR 63.9, 40 CFR 63.10, and 40 CFR 63.830.

19. Records of any instance of noncompliance with any permit condition.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-50-50, 9 VAC 5-80-110 E, 40 CFR 63.829)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)

2. If testing is conducted in addition to the monitoring specified by the permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	Methods 18, 25, and 25A or as required by DEQ
VOC Capture	Method 204 or as required by DEQ

(9 VAC 5-80-110 E)

3. Unless the requirements of 40 CFR 63.827(a)(1) through (a)(3) are met, the permittee shall conduct a performance test of the catalytic oxidizer to determine destruction efficiency for the purposes of meeting Conditions IV.A.3 and IV.A.8 in accordance with the following:

   a. An initial performance test to establish the destruction efficiency of the oxidizer and the associated catalyst bed inlet temperature shall be conducted and the data reduced in accordance with the following reference methods and procedures:

      1) Method 1 or 1A of 40 CFR 60, Appendix A is used for sample and velocity traverses to determine sampling locations.

      2) Method 2, 2A, 2C, or 2D of 40 CFR 60, Appendix A is used to determine gas volumetric flow rate.

      3) Method 3 of 40 CFR 60, Appendix A is used for gas analysis to determine dry molecular weight.

      4) Method 4 of 40 CFR 60, Appendix A is used to determine stack gas moisture.

      5) Methods 2, 2A, 3, and 4 of 40 CFR 60, Appendix A shall be performed, as applicable, at least twice during each test period.

      6) Methods 18, 25, and 25A of 40 CFR 60, Appendix A shall be used to determine organic volatile matter concentration. The owner or operator shall submit notice of the intended test method to the Director, Piedmont Regional Office for approval, along with notice of the performance test required under this section.

      7) Each performance test shall consist of three separate runs; each run conducted for at least one hour under the conditions that exist when the affected source is operating under normal operating conditions. For the purpose of determining

organic volatile matter concentrations and mass flow rates, the average of results of all runs will apply.

8) Organic volatile matter mass flow rates shall be determined using Equation 20 of 40 CFR 63 Subpart KK §63.827.

9) The catalytic oxidizer efficiency shall be determined using Equation 21 of 40 CFR 63 Subpart KK §63.827.

b. J. W. Fergusson & Sons, Inc. shall record such process information as may be necessary to determine the conditions of the performance test. Operations during periods of start-up, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test.

c. For the determination of the catalyst bed inlet temperature, the time-weighted average of the values recorded during the performance test shall be computed. J. W. Fergusson & Sons, Inc. shall establish as the operating parameter the minimum gas temperature upstream of the catalyst bed. This minimum temperature is the operating parameter value that demonstrates continuing compliance with the requirements of Conditions IV.A.3 and IV.A.8.

(40 CFR 63.827)

E. Reporting

1. For every month in which J. W. Fergusson & Sons, Incorporated is not in compliance with any condition of this permit for any part of the month, J. W. Fergusson & Sons, Incorporated shall submit a report in writing to the DEQ (Director, Piedmont Regional Office) within 30 days following the end of the month, stating the applicable permit condition, describing the circumstances of the noncompliance with the permit condition, and containing any pertinent records from the list of required records in Condition IV.C.1. Submittal of this report does not constitute a waiver of the emission limitations or other conditions of this permit nor does it restrict in any way the DEQ's authority to enforce the conditions of this permit pursuant to Section 113 of the Clean Air Act.
(9 VAC 5-50-50 E, Condition 26 of NSR permit dated 10/29/99)

2. If actions taken by the permittee during a start-up, shutdown, or malfunction (including actions taken to correct a malfunction) are not completely consistent with the procedures specified in the start-up, shutdown, and malfunction plan (see Appendix A to this permit), J. W. Fergusson & Sons, Incorporated shall submit a start-up, shutdown and malfunction report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, and shall be submitted semi-annually. Separate start-up, shutdown, or malfunction reports are not required if the information is included in the report specified in Condition IV.E.4.
(9 VAC 5-60-90, 40 CFR 63.830(a)(5))

3. The permittee shall submit reports semi-annually to the Director, Piedmont Regional Office of the following:

   a. Instances when the device used to measure facial velocity (or differential pressure) showed a three-hour average facial velocity of less than 200 feet/min (or .007 in. H_2O) and any corrective action taken;

   b. Instances when the criteria for the natural draft openings listed in Condition IV.A.12 are not met;

   c. Instances when press cleaning is conducted when the catalytic incinerator is not in operation and in compliance with a daily 95% control efficiency;

   d. Any day during which the catalytic incinerator does not meet at least 95% destruction of VOC;

   e. Any month during which the calculated annual throughput of VOCs for press cleaning/floor washing in the Press 1 & 2 enclosure exceeds the standard listed in Condition IV.A.4.

   f. Any day or month during which the calculated VOC emissions from each rotogravure press (EU ID #01 & 02) exceed the standards listed in Condition IV.A.6.

   g. Any day or month during which the calculated daily or annual emissions of VOC for press cleaning/floor washing exceeds the standard listed in Condition IV.A.6.

   (9 VAC 5-80-110 B)

4. The permittee shall submit a summary report to the Director, Piedmont Regional Office and to EPA Region III to document the ongoing compliance status of Presses 1 & 2 (EU ID #01-#02) . The report shall contain the information identified in Condition IV.E.5 below and shall be submitted semi-annually, except when:

   a. The Director, Piedmont Regional Office determines that more frequent reporting is necessary to accurately assess the compliance status, or

   b. The monitoring data collected by the permittee shows that the emission limit has been exceeded, in which case quarterly reports shall be submitted. Once the permittee reports an exceedance, ongoing compliance status reports shall be submitted quarterly until a request to reduce reporting frequency is approved.

   (9 VAC 5-60-90, 40 CFR 63.830(a)(6))

5. The compliance status report shall contain the following information:

   a. The company name and address.

b. An identification of the operating parameter that is monitored for compliance determination.

c. The emission limitation for each press (EU ID #01 & 02), and the parameter values that correspond to compliance with the emission limitation.

d. The beginning and ending dates of the reporting period.

e. A description of the type of process performed.

f. The total operating time of the presses (#01 & 02) during the reporting period.

g. A summary of operating parameter values, including the total duration of excess emissions during the reporting period as indicated by those values, the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to process upsets, control equipment malfunctions, other known causes, and unknown causes.

h. A certification by a responsible official that the start-up, shutdown and maintenance plan contained in Appendix A to this permit was followed.

i. If the start-up, shutdown and malfunction plan contained in Appendix A to this permit was not followed, an explanation of the reasons for not following the provisions, an assessment of whether any excess emission and/or parameter monitoring exceedances are believed to have occurred, and a copy of the reports documenting that the start-up, shutdown and malfunction plan shown in Appendix A was not followed.

j. A description of any changes in monitoring, processes, or controls since the last reporting period.

k. The name, title, and signature of the responsible official who is certifying the accuracy of the report.

l. The name of the report.

(9 VAC 5-60-90, 40 CFR 63.830(a)(6))

V. Process Equipment Requirements - (Rotogravure Presses Nos. 3-6 -- EU ID#03, 04, 05, 06 & 09)

A. Limitations

1. VOC emissions from the operation and cleaning of presses 3, 4, 5, and 6, including floor washing, shall be captured by a permanent total enclosure and controlled by a carbon adsorption system having a recovery efficiency of at least 73 percent on a mass basis. The control system shall be provided with adequate access for inspection.
(9 VAC 5-80-10 H, Condition 7 of NSR permit dated 10/29/99)

2. The daily overall control efficiencies for each of presses 3, 4, 5, and 6 (determined on a mass basis) for VOC emissions shall equal or exceed 73 percent.
(9 VAC 5-50-260, Condition 8 of NSR permit dated 10/29/99)

3. The permittee shall demonstrate compliance with 40 CFR 63 Subpart KK by operating a capture system and control device for presses 3, 4, 5, and 6, and demonstrating an overall HAP control efficiency of at least 95 percent for each month.
(40 CFR 63.825(h))

4. The annual throughput of solvent VOC to be used for press cleaning and floor washing within the press 3, 4, 5 and 6 permanent total enclosure shall not exceed 18 tons per year, calculated monthly as the sum of the throughput for the previous consecutive 12 months.
(9 VAC 5-170-160, Condition 12 of NSR permit dated 10/29/99)

5. Cleaning of presses and floors within the enclosure shall only be conducted when the associated control equipment for the enclosure is in operation and in compliance with a 73% daily overall control efficiency.
(9 VAC 5-170-160, Condition 13 of NSR permit dated 10/29/99)

6. VOC emissions from the operation of each of the presses, including press cleaning and floor washing shall not exceed the limitations specified below:

Press Number	pounds/day[1]	tons/yr[2]
3	2,590	125.0
4	2,590	125.0
5	2,590	133.0
6	1,150	40.0
Press Nos. 3,4,5 & 6 Enclosure Press Cleaning and Floor Washing	23.4 lbs/day[1]	4.3 tons/yr[2]

[1]daily
[2]annual emissions, calculated monthly as the sum over the previous consecutive 12 months

7. Except where this permit is more restrictive than the applicable requirement, the rotogravure presses (EU ID No. 3-6) shall be operated in compliance with the requirements of 40 CFR 63, Subpart KK.
(9 VAC 5-60-60 and 9 VAC 5-60-70)

8. HAP emissions shall be limited to no more than five percent of organic HAP applied for the month.
(40 CFR 63.825)

9. The permittee shall submit a plan to demonstrate continuous compliance with Condition V.A.8 in accordance with the following requirements. The permittee shall:

   a. Submit to the Director, Piedmont Regional Office the compliance status report required by § 63.9(h) of the 40 CFR 63 General Provisions, a plan that:

      1) Identifies the operating parameter to be monitored to ensure that the capture efficiency measured during the initial compliance test is maintained.

      2) Discusses why this parameter is appropriate for demonstrating ongoing compliance, and

      3) Identifies the specific monitoring procedure.

   b. Set the operating parameter value, or range of values, that demonstrate compliance with Condition V.A.8, and

   c. Conduct monitoring in accordance with the plan submitted to the Director, Piedmont Regional Office unless comments received from the Director, Piedmont Regional Office require an alternate monitoring scheme.

   (40 CFR 63.828(a)(5))

10. J. W. Fergusson & Sons, Inc. shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. The plan shall identify all routine or otherwise predictable control and monitoring system malfunctions. This plan shall be developed by the permittee by the source's compliance date for that relevant standard. The plan shall be incorporated by reference into the source's Title V permit (see Appendix A to this permit).
(40 CFR 63.9(e)(3))

11. The facility shall be subject to the General Provisions (Subpart A) of 40 CFR 63 as outlined in the table below:

Table 1 to Subpart KK of 40 CFR 63: General Provisions
Applicability to Subpart KK

Reference	Applies to Subpart KK	Comment
63.1(a)(1)-(a)(4)	Yes.	
63.1(a)(5)	No.	Section reserved.
63.1(a)(6)-(a)(8)	No.	
63.1(a)(9)	No.	Section reserved.
63.1(a)(10)-(a)(14)	Yes.	
63.1(b)(1)	No.	Subpart KK specifies applicability.
63.1(b)(2)-(b)(3)	Yes.	
63.1(c)(1)	Yes.	
63.1(c)(2)	No.	Area sources are not subject to Subpart KK.
63.1(c)(3)	No.	Section reserved.
63.1(c)(4)	Yes.	
63.1(c)(5)	No.	
63.1(d)	No.	Section reserved.
63.1(e)	Yes.	
63.2	Yes.	Additional definitions in Subpart KK.
63.3(a)-(c)	Yes.	
63.4(a)(1)-(a)(3)	Yes.	
63.4(a)(4)	No.	Section reserved.
63.4(a)(5)	Yes.	
63.4(b)-(c)	Yes.	
63.5(a)(1)-(a)(2)	Yes.	
63.5(b)(1)	Yes.	
63.5(b)(2)	No.	Section reserved.
63.5(b)(3)-(b)(5)	Yes.	
63.5(c)	No.	Section reserved.
63.5(d)	Yes.	
63.5(e)	Yes.	
63.5(f)	Yes.	
63.6(a)	Yes.	
63.6(b)(1)-(5)	Yes.	
63.6(b)(6)	No	Section reserved.
63.6(b)(7)	Yes.	
63.6(c)(1)-(2)	Yes.	
63.6(c)(3)-(c)(4)	No.	Sections reserved.
63.6(c)(5)	Yes.	
63.6(d)	No.	Section reserved.
63.6(e)	Yes.	Provisions pertaining to start-ups, shutdowns, malfunctions, and CMS do not apply unless add-on control system is used.
63.6(f)	Yes.	
63.6(g)	Yes.	
63.6(h)	No.	Subpart KK does not require COMS.
63.6(i)(1)-(i)(14)	Yes.	
63.6(i)(15)	No.	Section reserved.
63.6(i)(16)	Yes.	
63.6(j)	Yes.	
63.7	Yes.	
63.8(a)(1)-(a)(2)	Yes.	

63.8(a)(3)	No.	Section reserved.
63.8(a)(4)	No.	Subpart KK specifies the use of solvent recovery devices or oxidizers.
63.8(b)	Yes.	
63.8(c)(1)-(c)(3)	Yes.	
63.8(c)(4)	No	Subpart KK specifies CMS sampling requirements.
63.8(c)(5)	No.	Subpart KK does not require COMS
63.8(c)(6)-(c)(8)	Yes.	Provisions for COMS are not applicable.
63.8(d)-(f)	Yes.	
63.8(g)	No.	Subpart KK specifies CMS data reduction requirements
63.9(a)	Yes.	
63.9(b)(1)	Yes.	
63.9(b)(2)	Yes.	Initial notification submission date extended.
63.9(b)(3)-(b)(5)	Yes.	
63.9(c)-(e)	Yes.	
63.9(f)	No.	Subpart KK does not require opacity and visible emissions observations.
63.9(g)	Yes.	Provisions for COMS are not applicable.
63.9(h)(1)-(3)	Yes.	
63.9(h)(4)	No.	Section reserved.
63.9(h)(5)-(6)	Yes.	
63.9(i)	Yes.	
63.9(j)	Yes.	
63.10(a)	Yes.	
63.10(b)(1)-(b)(3)	Yes.	
63.10(c)(1)	Yes.	
63.10(c)(2)-(c)(4)	No.	Sections reserved.
63.10(c)(5)-(c)(8)	Yes.	
63.10(c)(9)	No.	Section reserved.
63.10(c)(10)-(c)(15)	Yes.	
63.10(d)(1)-(d)(2)	Yes.	
63.10(d)(3)	No.	Subpart KK does not require opacity and visible emissions evaluations.
63.10(d)(4)-(d)(5)	Yes.	
63.10(e)	Yes.	Provisions for COMS are not applicable.
63.10(f)	Yes.	
63.11	No.	Subpart KK specifies the use of solvent recovery devices or oxidizers.
63.12-63.15	Yes.	

(9 VAC 5-60-90)

12. The permanent total enclosure shall meet the following criteria:

    a. Any natural draft openings shall be at least 4 equivalent opening diameters from each VOC emitting point;

    b. The total area of all natural draft openings shall not exceed 5 percent of the surface area of the enclosure’s four walls, floor, and ceiling;

c. The average facial velocity of air through the natural draft openings shall be at least 200 feet per minute and the direction of flow shall be into the enclosure (or, if pressure differential is measured, the pressure drop shall be at least 0.007 in. H_2O);

d. All access doors and windows shall be closed during the routine operation of the press (except those which are included in determining the area of natural draft openings in V.A.12b.);

e. All of the exhaust gases from the enclosure shall be directed to the carbon bed adsorption system.

(9 VAC 5-80-30 F, Condition 17 of NSR permit dated 10/29/99)

B. Monitoring

1. Each permanent total enclosure shall be verified to meet the requirements of Condition V.A.12 for each day that enclosed presses are in operation, by one of the following methods:

   a. a daily demonstration that the enclosure is unchanged since the last performance test of the enclosure, using test records and installed monitoring devices. The enclosure shall be considered to be unchanged if the daily enclosure air flow monitoring device recorded reading represents and enclosure average facial air velocity or pressure drop that meets the requirements of Condition V.A.12c and the enclosure openings are either in the same position as they were during the most recent enclosure performance test, or shut; or

   b. a performance test of the enclosure using procedures for permanent total enclosures of AQP-3 and EPA Reference Method 204 (ref. 40 CFR 51, Appendix M) demonstrates that the permanent total enclosure requirements of Condition V.A.12 are met for that day.

   Daily verification records shall be kept in a format acceptable to the DEQ (Director, Piedmont Region). If an enclosure cannot be demonstrated to meet the permanent total enclosure requirements of Condition V.A.12, a VOC capture efficiency test on each of the enclosed presses or upon the enclosure shall be performed in accordance with AQP-3, EPA Reference Methods (ref. 40 CFR 51, Appendix M) and test procedures acceptable to the DEQ (Director, Piedmont Region) within 60 days thereafter.
   (9 VAC 5-80-10 H and 5-80-110 E, Condition 14 of NSR permit dated 10/29/99)

2. Continuing compliance with the 73% daily overall control efficiency requirement for the operation and cleaning of press units 3, 4, 5, and 6 and for press 3, 4, 5, and 6 enclosure floor washing operations shall be demonstrated as specified below:

   a. The carbon adsorption recovery system shall be in operation during all periods of printing and cleaning operations within the enclosure.

b. The continuous monitor that triggers adsorption/desorption cycles shall be set at the same or lower VOC concentration level as that during the most recent performance test of the carbon adsorption recovery system; and

c. The daily overall control efficiency for each press and for press cleaning and enclosure floor washing operations shall be calculated using the daily average VOC removal efficiency obtained from continuous monitoring of adsorber inlet and outlet VOC concentrations, and the VOC capture efficiency assigned to the enclosure by the most recent performance test acceptable to the DEQ (Director, Piedmont Regional Office). When a press permanent total enclosure has been verified in accordance with Condition V.B.1 to demonstrate that the requirements of Condition V.A.12 are being met for that day, then the VOC capture efficiency (CAP) assigned to each press and to cleaning operations within the enclosure for that day shall be 100%.

(9 VAC 5-80-10 H, Condition 16 of NSR permit dated 10/29/99)

3. J. W. Fergusson & Sons, Incorporated shall calibrate, maintain, and operate according to the manufacturer's specifications a continuous monitoring system equipped with an adsorption/desorption triggering device to measure and record the concentrations of VOC in the inlet and exhaust vent streams of the carbon bed and shall comply with the following requirements:

a. The continuous emission monitoring sensors shall be maintained in locations that are representative of the VOC concentrations in the inlet and exhaust vents. The sensor in the exhaust vent shall be located at least two equivalent stack diameters upstream from the exit to the atmosphere, and protected from interferences due to wind, weather, or other processes.

b. During any performance test of the carbon adsorption recovery efficiency, J. W. Fergusson & Sons, Incorporated shall record the exhaust VOC concentration level set to trigger the adsorption/desorption cycle.

c. After the most recent performance test demonstrates that the carbon adsorption system is in compliance with the requirements of Condition V.A.2, J. W. Fergusson & Sons, Incorporated shall determine and record the daily average VOC removal efficiency of the adsorber using the data from the continuous monitoring devices.

(9 VAC 5-50-40, Condition 20 of NSR permit dated 10/29/99)

4. J. W. Fergusson & Sons, Incorporated shall calibrate, maintain, and operate according to the manufacturer's specifications an air flow monitoring device which continuously measures differential pressure drop across the enclosure boundary or which continuously measures the face velocity of air flow into the enclosure and shall comply with the following requirements:

a. A performance evaluation of the monitoring device shall be performed concurrently with each performance test of the permanent total enclosure.

b. During the concurrent performance evaluation of the air flow monitoring device, J. W. Fergusson & Sons, Incorporated shall record the measurement of the air flow monitoring device which corresponds to 200 square feet per second (or greater) of face velocity air flow into the enclosure (or, alternatively, a pressure drop of .007 in H_2O), and shall record the open or shut condition of all access doors, windows, and other openings in the permanent total enclosure.

c. After the most recent performance test of the enclosure demonstrates that the permanent total enclosure is in compliance with the requirements of Condition V.A.12, J. W. Fergusson & Sons, Incorporated shall determine and record the reading of the air flow monitoring device and the open or shut condition of the enclosure openings once daily under representative operating conditions during each day in which presses within the enclosure are operated.

(9 VAC 5-80-30 H, Appendix S, Condition 21 of NSR permit dated 10/29/99)

5. Continuing compliance with VOC emission limits for each of the presses and the associated press cleaning and floor washing operations within each enclosure shall be determined as follows:

a. Compliance with daily VOC emission limits shall be determined for each calendar day in the month, within 30 days of the end of the month, by calculating:

DTE_3 through DTE_6 = Daily Total VOC emissions (mass) emitted from each of presses 3, 4, 5, and 6, as indicated by the following formulas:

$$DTE_3 = DTU_3 \times (100\% - DOCE_3) \div 100$$

$$DTE_4 = DTU_4 \times (100\% - DOCE_4) \div 100$$

$$DTE_5 = DTU_5 \times (100\% - DOCE_5) \div 100$$

$$DTE_6 = DTU_6 \times (100\% - DOCE_6) \div 100$$

$DTE_{clean3,4,5,6}$ = Daily Total VOC Emissions (mass) from cleaning within the press 3, 4, 5, and 6 enclosure, calculated by the following formula:

$$DTE_{clean3,4,5,6} = DTU_{clean3,4,5,6} \times (100\% - DOCE_{encl3,4,5,6}) \div 100$$

DTU_3 through DTU_6 = Daily Total VOC Used (mass) at each press

$DTU_{clean3,4,5,6}$ = Daily Total VOC Used (mass) to clean presses and floors within the press 3, 4, 5, and 6 enclosure, respectively.

CAP_3 through CAP_6 = Capture Efficiency (%) for each of presses 3, 4, 5, and 6.

$CAP_{encl3,4,5,6}$= Capture Efficiency (%) of press 3, 4, 5, and 6 enclosure.

$DOCE_3$ through $DOCE_6$ = Daily Overall Control Efficiency (%) for each of presses 3, 4, 5, and 6 as calculated by the following formulas:

$DOCE_3 = CAP_3 \times DAR \div 100$
$DOCE_4 = CAP_4 \times DAR \div 100$
$DOCE_5 = CAP_5 \times DAR \div 100$
$DOCE_6 = CAP_6 \times DAR \div 100$

DAR = Daily Average VOC Removal Efficiency (%) of the carbon adsorption system using the data from the most recent performance test.

b. Compliance with annual VOC emission limits for each press and for press cleaning and floor washing from each enclosure shall be determined monthly, within 30 days of the end of the month, by calculating the annual VOC emissions as the sum of daily VOC emissions for each of the presses and as the sum of daily VOC emissions for cleaning and floor washing within each enclosure, for the previous consecutive 12 months.

(9 VAC 5-80-10 H and 9 VAC 5-50-20, Condition 25 of NSR permit dated 10/29/99)

6. The permittee shall demonstrate compliance with the overall organic HAP control efficiency required in Conditions V.A.3 and V.A.8 using the procedures below:

a. Demonstrate initial compliance through performance tests of capture efficiency and control device efficiency and continuing compliance through continuous monitoring of capture system and control device operating parameters following the procedures below:

1) Install continuous emission monitors to determine the total organic volatile matter mass flow rate (e.g., by determining the concentration of the vent gas in grams per cubic meter, and the volumetric flow rate in cubic meters per second, such that the total organic volatile matter mass flow rate in grams per second can be calculated and summed) at both the inlet to and the outlet from the control device, such that the percent control efficiency (E) of the control device can be calculated for each month.

2) Install, calibrate, operate and maintain the instrumentation necessary to measure continuously the site-specific operating parameter established in accordance with § 63.828(a)(5) whenever presses 3-6 are operating.

3) Determine the capture system efficiency (F) in accordance with 63.827(e)-(f) of 40 CFR Part 63 Subpart KK.

4) Calculate the overall organic HAP control efficiency, (R), achieved using Equation 13 of 40 CFR Subpart 63.825.

b. Presses 3, 4, 5, and 6 are in compliance with the 95 percent overall control efficiency for the month if for each press or the group of presses the overall organic HAP control efficiency as determined by III.C.17.a(2)-(4) is greater than 95 percent and the average capture system operating parameter value for each capture system serving that control device is greater than or less than (as appropriate) the operating parameter value established for that capture system in accordance with § 63.828(a)(5) for each three hour period.

(40 CFR 63.825(c)(2), 40 CFR 63.825(h)(2), and 40 CFR 63.828(a)(5))

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrated compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

1. Daily records of DTU, DTE, CAP, and DOCE for printing operations at each press and floor cleaning operations within each enclosure, and records of DAR for the carbon adsorption unit as required by Condition V.B.5.

2. Records required by “Procedures for Maintaining Records for Surface Coating Operations and Graphic Arts Printing Processes” (AQP-4):

   a. The following information shall be maintained at all times:

      1) Coating application system number.

      2) Hours of operation per day and per year.

      3) Method of application.

      4) Number and types of coats applied to the substrate.

      5) Drying method.

      6) Substrate type.

   b. The following information for each coating shall be maintained at all times:

      1) Supplier name, coater name and identification number.

2) Coating density (pounds per gallon).

3) Volatile content of coating as supplied (percent by weight).

4) Water content of coating as supplied (percent by weight).

5) Exempt solvent content of coating as supplied (percent by weight).

6) Solids content of coating as supplied (percent by volume).

7) Name of diluent added, if any.

8) Identification number of diluent.

9) Diluent volatile organic compound density (pounds per gallon).

10) Volatile organic compound content of diluent (percent by weight).

11) Exempt solvent content of diluent (percent by weight).

c. The following information for each coating application system shall be maintained on a daily basis:

1) Coating application system number.

2) Time period of each application run.

3) Coating identification number.

4) Amount of coating used.

5) Diluent and cleanup solvent identification numbers.

6) Amount of diluent used.

7) Amount of cleanup solvents used.

8) Calculated volatile organic compound emissions.

d. The following records shall be maintained for the carbon adsorber:

1) Control device identification number and model number.

2) Manufacturer.

3) Installation date.

4) Coating application systems controlled.

5) Whether or not the control device is always in operation when the system is serves is in operation.

6) Type of control device.

7) Destruction or removal efficiency.

8) Date tested (if not tested, method of determining destruction efficiency).

9) Emission test results, including inlet volatile organic compound concentration (parts per million), outlet VOC concentration (parts per million), method of concentration determination, and date of determination.

10) Type and location of capture system.

11) Capture efficiency (percent).

3. Monthly records of annual VOC emissions from the operation of each of the presses, and annual VOC emissions from press cleaning and floor washing operations within each enclosure.

4. Daily records of enclosure verifications.

5. Continuous monitoring device data and calibrations.

6. The total number of days, if any, for which the permanent total enclosures could not be verified using installed monitoring devices and test records while the presses were in operation or being cleaned, or while the enclosure floors were being washed.

7. Any instances of operation or cleaning of the enclosed presses, or of floor washing within the enclosures, without the associated control device being in operation.

8. The total number of hours, if any, during which each control device monitoring sensor and system was malfunctioning or not in operation while presses monitored by that sensor or system were in operation.

9. Total number of days that compliance was not achieved with Conditions V.A.3 and V.A.6, if any, and total tons of excess emissions from each source for each day not in compliance with those conditions.

10. Records needed to demonstrate compliance with 40 CFR 63 Subpart KK; these records may include material usage, HAP usage, volatile matter usage, and solid usage. These records may also include continuous emission monitor data, and control device data.

11. A written copy of the facility's startup, shutdown, and malfunction plan (see Appendix A to this permit). (If the plan is revised, J. W. Fergusson shall keep previous, (i.e., superseded) versions of the startup, shutdown, and malfunction plan on record)

12. Records of all maintenance performed on the enclosures and ductwork, carbon bed, and monitoring equipment.

13. Records of the occurrence, duration, and cause (if known) of each malfunction of the process, air pollution control equipment, and monitoring equipment.

14. Records of actions taken during periods of malfunction when such actions are inconsistent with the startup, shutdown and malfunction plan contained in Appendix A to this permit.

15. Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the startup, shutdown and malfunction plan contained in Appendix A to this permit.

16. Test reports documenting results of all performance tests.

17. All measurements as may be necessary to determine the conditions during the performance tests.

18. All documentation supporting the notifications and reports required by 40 CFR 63.9, 40 CFR 63.10, and 40 CFR 63.830.

19. Records of any instance of noncompliance with any permit condition.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(40 CFR 63.829, 9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 34 of 10/29/99 Permit)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25a or as required by DEQ
VOC Capture	EPA Method 204 or as required by DEQ

(9 VAC 5-80-110)

E. Reporting

1. For every month in which J. W. Fergusson & Sons, Incorporated is not in compliance with any condition of this permit for any part of the month, J. W. Fergusson & Sons, Incorporated shall submit a report in writing to the DEQ (Director, Piedmont Regional Office) within 30 days following the end of the month, stating the applicable permit condition, describing the circumstances of the noncompliance with the permit condition, and containing any pertinent records from the list of required records in Condition IV.C.1. Submittal of this report does not constitute a waiver of the emission limitations or other conditions of this permit nor does it restrict in any way the DEQ's authority to enforce the conditions of this permit pursuant to Section 113 of the Clean Air Act.
(9 VAC 5-50-50 E, Condition 26 of NSR permit dated 10/29/99)

2. If actions taken by the permittee during a start-up, shutdown, or malfunction (including actions taken to correct a malfunction) are not completely consistent with the procedures specified in the start-up, shutdown, and malfunction plan (Appendix A to this permit), J. W. Fergusson & Sons, Incorporated shall submit a start-up, shutdown and malfunction report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, and shall be submitted semi-annually. Separate start-up, shutdown, or malfunction reports are not required if the information is included in the report specified in Condition V.E.4.
(9 VAC 5-60-90, 40 CFR 63.830(a)(5))

3. The permittee shall submit reports semi-annually to the Director, Piedmont Regional Office of the following:

   a. Instances when the device used to measure facial velocity (or differential pressure) showed a three-hour average facial velocity of less than 200 feet/min (or .007 in. H_2O) and any corrective action taken;

   b. Instances when criteria for the natural draft openings listed in Condition V.A.12 are not met;

   c. Instances when press cleaning is conducted when the carbon bed is not in operation and in compliance with a daily 73% control efficiency;

   d. Any day during which the carbon bed does not meet at a VOC recovery efficiency of at least 73%;

   e. Any month during which the calculated annual throughput of VOCs for press cleaning/floor washing in the Presses 3-6 enclosure exceeds the standard listed in Condition V.A.4.

   f. Any day or month during which the calculated VOC emissions from each rotogravure press (EU ID #03-06) exceed the standards listed in Condition V.A.6.

g. Any day or month during which the calculated daily or annual emissions of VOC for press cleaning/floor washing exceeds the standard listed in Condition V.A.6.

(9 VAC 5-80-110 B)

4. The permittee shall submit a summary report to the Director, Piedmont Regional Office and to EPA Region III to document the ongoing compliance status of Presses 3, 4, 5 and

6 (EU ID #03-#06) . The report shall contain the information identified in Condition V.E.5 below and shall be submitted semi-annually, except when:

a. The Director, Piedmont Regional Office determines that more frequent reporting is necessary to accurately assess the compliance status, or

b. The monitoring data collected by the permittee shows that the emission limit has been exceeded, in which case quarterly reports shall be submitted. Once the permittee reports an exceedance, ongoing compliance status reports shall be submitted quarterly until a request to reduce reporting frequency is approved. (9 VAC 5-60-90, 40 CFR 63.830(a)(6))

5. The compliance status report shall contain the following information:

a. The company name and address.

b. An identification of the operating parameter that is monitored for compliance determination.

c. The emission limitation for each press (EU ID #03-#06), and the parameter values that correspond to compliance with the emission limitation.

d. The beginning and ending dates of the reporting period.

e. A description of the type of process performed.

f. The total operating time of the presses (EU ID #03-#06) during the reporting period.

g. A summary of operating parameter values, including the total duration of excess emissions during the reporting period as indicated by those values, the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to process upsets, control equipment malfunctions, other known causes, and unknown causes.

h. A certification by a responsible official that the start-up, shutdown, and malfunction plan for this source (Appendix A to this permit) was followed.

i. If the start-up, shutdown and malfunction plan contained in Appendix A to this permit was not followed, an explanation of the reasons for not following the provisions, an

assessment of whether any excess emission and/or parameter monitoring exceedances are believed to have occurred, and a copy of the reports documenting that the start-up, shutdown and malfunction plan shown in Appendix A was not followed.

j. A description of any changes in monitoring, processes, or controls since the last reporting period.

k. The name, title, and signature of the responsible official who is certifying the accuracy of the report, and

l. The name of the report.

(9 VAC 5-60-90, 40 CFR 63.830(a)(6))

VI. Process Equipment Requirements - (Progressive Recovery, Inc. Automated Parts Washing System -- EU ID#07)

A. Limitations

1. Volatile organic compound (VOC) emissions from the operation of the Progressive Recovery, Inc. automated parts washing system shall be controlled by the implementation of control requirements from 9 VAC 5-40-3290 C and D.
(9 VAC 5-80-10 H and Condition 4 of NSR permit issued 10/29/99)

2. VOC emissions from the operation of the Progressive Recovery, Inc. automated parts washing system shall not exceed 7.9 lbs/cycle (average of monthly records), nor 15.7 lbs/hr, nor 188.9 lbs/day (calculated daily), nor 34.5 tons/yr (annual average, calculated monthly as the sum of over the previous consecutive 12 months).
(9 VAC 5-50 160, Condition 9 of NSR permit issued 10/29/99)

3. J. W. Fergusson & Sons, Incorporated shall equip the Progressive Recovery, Inc. automated parts washing system with a control method that will remove, destroy, or prevent the discharge into the atmosphere of at least 85 percent by weight of all volatile organic compound emissions. Compliance with this emission standard will be demonstrated by compliance with the applicable control and operating requirements of 9 VAC 5-40-3290 C.
(9 VAC 5-50-10, 9 VAC 5-40-3280, 9 VAC 5-40-3290 C and D, Condition 31 of NSR permit issued 10/29/99)

4. The requirement in Condition VI.A.3. shall be achieved by using the following methods:

   a. Reservoirs shall be covered or enclosed. Covers shall be designed so that they can be easily operated with one hand. Enclosed remote reservoirs should be designed such that they provide reduction effectiveness equivalent to that of a cover.

   b. External or internal drainage facilities shall be provided to collect and return the solvent to a closed container or a solvent cleaning machine. If solvent volatility is greater than 0.6 psi measured at 100 °F, then the drainage facilities shall be internal, so that parts are enclosed under the cover while draining. The drainage system may be external for applications where an internal type cannot fit into the cleaning system.

   c. A permanent label, summarizing the operating procedures listed below, shall be placed in a conspicuous location on or near the maintenance shop cold cleaning degreaser.

   d. If used, the solvent spray should be a solid stream and not a fine, atomized, or shower type spray, and at a pressure that does not cause excessive splashing.

e. If a solvent volatility is greater than 0.6 psi measured at 100 °F, or if the solvent is heated above 120 °F, then the Progressive Recovery Parts washer (ref #07) shall be equipped with one of the following vapor control methods:

(1) Freeboard ratio that is equal to or greater than 0.7;

(2) Water cover (solvent should be insoluble in and heavier than water);

(3) Refrigerated chiller (a secondary set of condensing coils operating with a coolant of less than 40 °F);

(4) Carbon adsorption system, with ventilation of 50 cfm/square foot or greater of air/vapor area (when down-time covers are open), and exhausting less than 25 ppm of solvent by volume averaged over a complete adsorption cycle; or

(5) Any method of equal or greater control efficiency to the methods in Condition VI.A.4.e(1) through (4), provided the method is approved by the board.

f. Waste solvent should not be disposed of or transferred to another party, such that greater than 20% of the waste (by weight) can evaporate into the atmosphere. Store waste solvent only in closed containers.

g. The parts washer cover should be closed whenever not handling parts in the cleaner.

h. Parts shall drain for at least 15 seconds or until dripping ceases.

i. Disposal of waste solvent from solvent metal cleaning operations should be by either reclamation (either by outside services or in house) or incineration.

5. Operation of the Progressive Recovery, Inc. automated parts washer shall not exceed:

a. 24 wash cycles per day, calculated daily as the sum of completed wash cycles over the previous 24 hour period; and

b. 8760 wash cycles per year, calculated monthly as the sum of wash cycles over the previous consecutive 12 months.

(9 VAC 5-170-160, Condition 32 of NSR permit issued 10/29/99)

B. Monitoring

1. Continuing compliance with VOC emission limits for the Progressive Recovery, Inc. automated parts washing system shall be determined monthly, within 30 days of the end of the month, as follows:

a. VOC emissions (lbs/cycle)[1]= R_P (lbs/cycle) = P_P (lbs/cycle);

b. VOC emissions (lbs/hr)[1] = P_P (lbs/cycle) x 2 cycles/hr;

c. VOC emissions (lbs/day) = P_P (lbs/cycle) x N (cycles for the day) and shall be calculated for each day of operation during the month; and

d. VOC emissions (tons/yr) = P_P (lbs/cycle) x N (cycles for the previous consecutive 12 months);

where,

R_P (lbs VOC emissions/cycle) = P_P (lbs VOC inventory loss/cycle)

P_P (lbs VOC inventory loss/cycle) = $\frac{\text{(lbs VOC inventory loss during the calendar month)}}{\text{(number of wash cycles during the calendar month)}}$

The monthly determination of inventory loss from the Progressive Recovery, Inc. system shall include, at a minimum, the amount of solvent VOC remaining in the wash system, the makeup solvent VOC added, and the waste solvent VOC removed from the wash system. The value of R shall be determined monthly unless the calculated value of R_P is within 5 percent of the average of the three previous consecutive calculated values of R_P. Then the value of R_P may be determined once annually until the calculated value of R_P is no longer within 5 percent of the average of the three previous consecutive calculated values of R_P.
(9 VAC 5-50-20 and 9 VAC 5-80-10 H, Condition 30 of NSR permit issued 10/29/99)

2. The permittee shall develop, and submit to the Director, Piedmont Region for review and approval, checklists of the work practices required in Condition VI.A.4 for the Progressive Recovery, Inc. automated parts washing system (EU ID #07). These checklists shall be submitted for approval no later than 180 days after the initial issuance of this Title V permit. The permittee shall use these checklists monthly to perform an inspection of the work practices used on each unit. The permittee shall record the time, date, and name of the staff member performing each inspection, as well as the annotated checklist for that inspection. Any deviations from the required work practices shall be corrected as expeditiously as possible and noted on the checklist.
(9 VAC 5-80-110 B)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrated compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

a. Monthly records of solvent VOC inventory loss from the Progressive Recovery, Inc. automated parts washing system (EU ID #07);

[1] monthly average

b. Daily and annual records of the number of wash cycles for the Progressive Recovery, Inc. automated parts washing system (EU ID #07);

c. Monthly records of daily and annual VOC emissions from the Progressive Recovery, Inc. automated parts washing system (EU ID #07).

d. The four (4) most recent (monthly or annual) calculated values of lbs. of solvent VOC emissions per wash cycle (R_P) for the Progressive Recovery, Inc. automated parts washing system (EU ID #07), and the calculated average of the earliest three of the four.

e. Total number of days that compliance was not achieved with Condition VI.A.2 and VI.A.5, if any, and total tons of excess emissions for each day not in compliance with these conditions.

f. Checklists documenting all monthly inspections for work practice standards pertaining to the Progressive Recovery, Inc. automated parts washing system (EU ID #07), as required by Condition VI.B.2.

These records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-50-50, 9 VAC 5-80-110, Condition 34 of NSR permit issued 10/29/99)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25a or as required by DEQ

(9 VAC 5-80-110)

E. Reporting

1. For every month in which J. W. Fergusson & Sons, Incorporated is not in compliance with any condition of this permit for any part of the month, J. W. Fergusson & Sons, Incorporated shall submit a report in writing to the DEQ (Director, Piedmont Regional Office) within 30 days following the end of the month, stating the applicable permit condition, describing the circumstances of the noncompliance with the permit condition,

and containing any pertinent records from the list of required records in Section VI.C. Submittal of this report does not constitute a waiver of the emission limitations or other conditions of this permit nor does it restrict in any way the DEQ's authority to enforce the conditions of this permit pursuant to Section 113 of the Clean Air Act.
(9 VAC 5-50-50 E, Condition 26 of NSR permit dated 10/29/99)

2. The permittee shall submit reports semi-annually to the Director, Piedmont Regional Office of the following:

   a. Instances when monthly inspections of work practices for the Progressive Recovery, Inc. automated parts washing system (EU ID #07) showed deviation from required practices, and actions taken, including training of personnel, to rectify the situation and prevent future occurrences.

   b. Any day or month during which the calculated VOC emissions from the Progressive Recovery, Inc. automated parts washing system (EU ID #07) exceeds the standards listed in Condition VI.A.2.

   c. Any day or month during which the number of wash cycles run in the Progressive Recovery, Inc. automated parts washing system (EU ID #07) exceeds the standards listed in Condition VI.A.5.

   (9 VAC 5-80-110 B)

VII. Process Equipment Requirements - (Renzmann Automated Parts Washing System -- EU ID#10)

A. Limitations

1. Volatile organic compound (VOC) emissions from the operation of the Renzmann automated parts washing system (EU ID #10) shall be controlled by the totally enclosed operating design of the system, compliance with the permit control and operating requirements, and by either a carbon adsorption system having a recovery efficiency of at least 95 percent on a mass basis or a catalytic incinerator having a destruction efficiency of 95 percent on a mass basis. The emission control system shall be provided with adequate access for inspection.
(9 VAC 5-80-10, Condition 5 of NSR permit issued 10/29/99)

2. VOC emissions from the operation Renzmann automated parts washing system (EU ID #10) shall not exceed the limits specified below:

18.6 lbs/hr	371.7 lbs/day[1]	34.1 tons/yr

(9 VAC 5-50-260, Condition 9 of NSR permit dated 10/29/99)

3. Operation of the Renzmann automated parts washing system (EU ID #10) shall not exceed 20 wash cycles per day, calculated daily as the sum of completed wash cycles over the previous 24 hour period.
(9 VAC 5-80-10 H, Condition 18 of NSR permit dated 10/29/99)

4. J. W. Fergusson & Sons, Incorporated shall equip the Renzmann automated parts washing system (EU ID #10) with control methods that will remove, destroy, or prevent from discharge into the atmosphere at least 85 percent by weight of all VOC. Compliance with this emission limit shall be demonstrated by compliance with the following control and operating requirements:

   a. The washing system shall be provided with the capability to be totally enclosed while it is operating. Door seals and enclosed reservoir covers shall be maintained to prevent excess emissions.

   b. The washing system shall be provided with internal drainage facilities which returns solvent to an internal solvent reservoir, so that parts are totally enclosed while they are draining.

   c. A permanent label summarizing the operating procedures shall be placed in a conspicuous location near the operating controls of the washing system.

   d. All VOC emissions vented from the wash chamber shall be ducted either to an operating carbon adsorption system which demonstrates a recovery efficiency (DAR) of at least 95 percent by weight or to an operating catalytic incinerator which demonstrates a daily destruction efficiency (DDE) of at least 95 percent by weight.

[1]monthly average

e. Waste solvent from the Renzmann parts washer shall be stored only in closed containers and shall be transferred only to closed containers.

f. The washing system door and covers shall remain closed except when parts are being loaded or unloaded from the system or maintenance on the washing system is in progress.

g. Cleaned parts shall be allowed to drain until the operating cycle of the washing system has been completed.

h. Waste solvent from the washing system shall be reclaimed or incinerated.

(9 VAC 5-50-10, 9 VAC 5-40-3280, and 9 VAC 5-40-3290 C and D, Condition 27 of NSR permit issued 10/29/99)

B. Monitoring

1. Continuing compliance with VOC emission limits for the Renzmann automated parts washing system (EU ID #10) shall be determined monthly, within 30 days of the end of the month, as follows:

   a. VOC emissions (lbs/hr) = R_R (lbs/cycle) x 1 cycle/hr;

   b. VOC emissions (lbs/day) = R_R (lbs/cycle) x N (cycles for the day) and shall be calculated for each day of operation during the month;

   c. VOC emissions (lbs/month) = ΣVOC emissions (lbs/day), and shall be calculated as the sum over the calendar month; and

   d. VOC emissions (tons/yr) = ΣVOC emissions (lbs/month), and shall be calculated monthly as the sum for the previous consecutive 12 months;

   where,

   $$R_R \text{ (lbs VOC emissions/cycle)} = P_R - \left[\frac{DE}{100} \times \frac{C \times Q \times M \times 10^6}{GD} \right]$$

   $$P_R \text{ (lbs VOC inventory loss/cycle)} = \frac{\text{(lbs VOC inventory loss in calendar month)}}{\text{no. of wash cycles during calendar month}}$$

   DE (%) = daily control device efficiency = DDE or DAR, as applicable

   C (ppmv) = average Renzmann cycle purge air VOC concentration (lbmole/10^6 lbmoles)

   Q (scf/cycle) = average cycle purge air volume @ standard conditions

   M (lbs/lbmole) = average molecular weight of solvent VOC

GD (scf/lbmole) = molar gas density @ standard conditions

The monthly determination of inventory loss from the Renzmann system shall include, at minimum, the amount of solvent VOC remaining in the wash system, the makeup solvent VOC added and the waste solvent VOC removed from the wash system. The values of C, Q, and M shall be redetermined if an annual analysis of the recovered solvent predicts that the VOC composite partial vapor pressure has changed by 5 percent. The values of P_R and R_R shall be determined monthly.
(9 VAC 5-50-20 and 9 VAC 5-80-10 H, Condition 29 of NSR permit issued 10/29/99)

2. The permittee shall develop, and submit to the Director, Piedmont Region for review and approval, checklists of the work practices required in Condition VII.A.4 for the Renzmann automated parts washing system (EU ID #10). These checklists shall be submitted for approval no later than 180 days after the initial issuance of this Title V permit. The permittee shall use these checklists monthly to perform an inspection of the work practices used on each unit. The permittee shall record the time, date, and name of the staff member performing each inspection, as well as the annotated checklist for that inspection. Any deviations from the required work practices shall be corrected as expeditiously as possible and noted on the checklist.
(9 VAC 5-80-110 B)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrated compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

1. Monthly records of solvent VOC inventory loss from the Renzmann automated parts washing system (EU ID #10).

2. Daily and annual records of the number of wash cycles for the Renzmann automatic parts washing system (EU ID #10).

3. Monthly records of daily and annual VOC emissions from Renzmann automatic parts washing system (EU ID #10).

4. Monthly calculation of the daily values of pounds of solvent VOC emissions per wash cycle (R_R) for the Renzmann, the most recent test values of C, Q, and M, the theoretical VOC partial vapor pressure of the recovered solvent when C, Q, and M were last determined, and the last annual evaluation of the recovered solvent changes to determine the magnitude of theoretical VOC composite partial vapor pressure changes.

5. Any instance of operation of the Renzmann automated parts washing system (EU ID #10) without the associated control device being in operation as required by Condition VII.A.1.

6. Any periods of excess emissions calculated in Condition VII.B.1.

7. Total number of days that compliance was not achieved with Condition VII.A.2, if any, and total tons of excess emissions for each day not in compliance with this condition.

8. Checklists documenting all monthly inspections for work practice standards pertaining to the Renzmann, as required by Condition VII.B.2.

These records shall be available for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-50-50, 9 VAC 5-80-110, Condition 34 of NSR permit issued 10/29/99)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25a or as required by DEQ

(9 VAC 5-80-110)

E. Reporting

1. For every month in which J. W. Fergusson & Sons, Incorporated is not in compliance with any condition of this permit for any part of the month, J. W. Fergusson & Sons, Incorporated shall submit a report in writing to the DEQ (Director, Piedmont Regional Office) within 30 days following the end of the month, stating the applicable permit condition, describing the circumstances of the noncompliance with the permit condition, and containing any pertinent records from the list of required records in Section VII.C. Submittal of this report does not constitute a waiver of the emission limitations or other conditions of this permit nor does it restrict in any way the DEQ's authority to enforce the conditions of this permit pursuant to Section 113 of the Clean Air Act.
(9 VAC 5-50-50 E, Condition 26 of NSR permit dated 10/29/99)

2. The permittee shall submit reports semi-annually to the Director, Piedmont Regional Office of the following:

   a. Instances when monthly inspections of work practices for the Renzmann automated parts washing system (EU ID #10) showed deviation from required practices, and

actions taken, including training of personnel, to rectify the situation and prevent future occurrences.

b. Instances when the Renzmann automated parts washing system (EU ID #10) is operated without the associated control device as required by Condition VII.A.1.

c. Any day or month during which the calculated VOC emissions from the Renzmann automated parts washing system (EU ID #10) exceeds the standards listed in Condition VII.A.2.

d. Any day during which the number of wash cycles run in the Renzmann automated parts washing system (EU ID #10) exceeds the standards listed in Condition VII.A.3.

(9 VAC 5-80-110 B)

VIII. Process Equipment Requirements – Make-Ready Room (EU ID #11)

A. Limitations

1. Volatile Organic Compound (VOC) emissions from the operation of the Make-ready Room (the manual cylinder wash station, and the doctor blade wash tank) shall be controlled by the implementation of control and operating requirements from 9 VAC 5-40-3290 C and D. (9 VAC 5-80-10 H, Condition 4 of NSR permit dated 10/29/99)

2. Volatile Organic Compound emissions from the operation of the Make-ready Room (cylinder wash, doctor blade, floor washing) shall not exceed the limits specified below:

Volatile Organic Compounds	113.3 lbs/day[2]	4.7 tons/yr[1]

(9 VAC 5-50-260, Condition 9 of NSR permit dated 10/29/99)

3. J. W. Fergusson & Sons, Incorporated shall equip the manual cylinder wash station and doctor blade wash tank with a control method that will remove, destroy, or prevent the discharge into the atmosphere of at least 85 percent by weight of all volatile organic compound emissions. Compliance with this emission standard will be demonstrated by compliance with the applicable control and operating requirements of 9 VAC 5-40-3290 C. (9 VAC 5-50-10, 9 VAC 5-40-3280, 9 VAC 5-40-3290 C and D, Condition 31 of NSR permit issued 10/29/99)

4. The requirement in Condition VIII.A.3. shall be achieved by using the following methods:

   a. Reservoirs shall be covered or enclosed. Covers shall be designed so that they can be easily operated with one hand. Enclosed remote reservoirs should be designed such that they provide reduction effectiveness equivalent to that of a cover.

   b. External or internal drainage facilities shall be provided to collect and return the solvent to a closed container or a solvent cleaning machine. If solvent volatility is greater than 0.6 psi measured at 100 °F, then the drainage facilities shall be internal, so that parts are enclosed under the cover while draining. The drainage system may be external for applications where an internal type cannot fit into the cleaning system.

   c. A permanent label, summarizing the operating procedures listed below, shall be placed in a conspicuous location on or near the maintenance shop cold cleaning degreaser.

[1]annual emissions, calculated monthly as the sum of the previous consecutive 12 months
[2]average of monthly records

d. If used, the solvent spray should be a solid stream and not a fine, atomized, or shower type spray, and at a pressure that does not cause excessive splashing.

e. Waste solvent should not be disposed of or transferred to another party, such that greater than 20% of the waste (by weight) can evaporate into the atmosphere. Store waste solvent only in closed containers.

f. The parts washer cover should be closed whenever not handling parts in the cleaner.

g. Parts shall drain for at least 15 seconds or until dripping ceases.

h. Disposal of waste solvent from solvent metal cleaning operations should be by either reclamation (either by outside services or in house) or incineration.

B. Monitoring

1. Continuing compliance with the Make-ready Room VOC emission limits (for the doctor blade wash tank, floor washing, and manual cylinder cleaning) shall be determined monthly, within 30 days of the end of the month, as follows:

   a. VOC emissions (lbs/day) =

   $$\frac{\text{monthly VOC inventory loss (lbs) of Make-ready Room sources (incl. Floor washing)}}{\text{days of operation (days) of Make-ready Room emissions sources (incl. Floor washing)}}$$

   b. VOC emissions (tons/yr) =

   $$\frac{\Sigma\text{solvent VOC inventory loss over the previous consecutive 12 months (lbs VOC/yr)}}{2000\ \text{lbs/ton}}$$

   (9 VAC 5-50-20 and 9 VAC 5-80-10 H, Condition 35 of NSR permit issued 10/29/99)

2. The permittee shall develop, and submit to the Director, Piedmont Region for review and approval, checklists of the work practices required in Condition VIII.A.4 for the Make-Ready Room (EU ID #11). These checklists shall be submitted for approval no later than 180 days after the initial issuance of this Title V permit. The permittee shall use these checklists monthly to perform an inspection of the work practices used on each unit. The permittee shall record the time, date, and name of the staff member performing each inspection, as well as the annotated checklist for that inspection. Any deviations from the required work practices shall be corrected as expeditiously as possible and noted on the checklist.
   (9 VAC 5-80-110 B)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrated compliance with this permit. The content of and format of such

records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

1. Monthly records of solvent VOC inventory loss from the Make-ready room emission sources (the doctor blade wash tank, manual cylinder cleaning operations, and floor washing operations)

2. Monthly records of daily and annual VOC emissions from the operation and cleaning of the Make-ready Room.

3. Total number of days that compliance was not achieved with Condition VIII.A.2, if any, and the total tons of excess emissions from the Make-ready room for each day not in compliance with that Condition.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-50-50, 9 VAC 5-80-110 and Condition 34 of 10/29/99 Permit)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
VOC	EPA Methods 18, 25, 25a or as required by DEQ

(9 VAC 5-80-110)

E. Reporting

1. For every month in which J. W. Fergusson & Sons, Incorporated is not in compliance with any condition of this permit for any part of the month, J. W. Fergusson & Sons, Incorporated shall submit a report in writing to the DEQ (Director, Piedmont Regional Office) within 30 days following the end of the month, stating the applicable permit condition, describing the circumstances of the noncompliance with the permit condition, and containing any pertinent records from the list of required records in Section VIII.C. Submittal of this report does not constitute a waiver of the emission limitations or other conditions of this permit nor does it restrict in any way the DEQ's authority to enforce the conditions of this permit pursuant to Section 113 of the Clean Air Act.
(9 VAC 5-50-50 E, Condition 26 of NSR permit dated 10/29/99)

2. The permittee shall submit reports semi-annually to the Director, Piedmont Regional Office of the following:

   a. Instances when monthly inspections of work practices for the Make-Ready room (EU ID #11) showed deviation from required practices, and actions taken, including training of personnel, to rectify the situation and prevent future occurrences.

   b. Any day or month during which the calculated VOC emissions from the Make-Ready room (EU ID #11) exceeds the standards listed in Condition VIII.A.2.

   (9 VAC 5-80-110 B)

IX. Process Equipment Requirements - (Chrome Plating -- EU ID #31)

A. Limitations

1. Except where this permit is more restrictive than the applicable requirement, the chromium electroplating process (EU ID #31) shall be operated in compliance with the requirements of 40 CFR 63, Subpart N.
(9 VAC 5-60-60 and 9 VAC 5-60-70)

2. The permittee has established its status as a small, hard chromium electroplating facility, which performs hard chromium electroplating and has a maximum cumulative potential rectifier capacity less than 60 million amp-hr/year.
(9 VAC 5-60-90, 40 CFR 63.341(a))

3. The emission limitations listed in this section apply only during operation of the chrome plating bath (EU ID #31) and also apply during periods of startup and shutdown. The emission limitations do not apply during periods of malfunction, but the work practice standards that address operation and maintenance and that are required by Conditions 5, 6, 7 and 9 must be followed during malfunctions.
(9 VAC 5-60-90, 40 CFR 63.342 (b)(1))

4. During operation of the chrome plating bath (EU ID #31), the permittee shall control chromium emissions discharged to the atmosphere by maintaining the concentration of total chromium in the exhaust gas stream below .03 mg/dscm (1.3×10^{-5} gr/dscf).
(9 VAC 5-60-90, 40 CFR 63.342(c)(1)(ii))

5. At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain the chrome plating bath (EU ID #31), the composite mesh-pad system (PCD ID #03), and all monitoring equipment in a manner consistent with good air pollution control practices, consistent with the operation and maintenance plan required by Condition IX.A.9 (Appendix B to this permit).
(9 VAC 5-60-90, 40 CFR 63.342(f)(1)(i))

6. Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the operation and maintenance plan required by Condition IX.A.9 (Appendix B to this permit).
(9 VAC 5-60-90, 40 CFR 63.342(f)(1)(ii))

7. Operation and maintenance requirements established pursuant to section 112 of the Clean Air Act are enforceable independent of emission limitations or other requirements in relevant standards.
(9 VAC 5-60-90, 40 CFR 63.342(f)(1)(iii))

8. Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Director, Piedmont Regional Office, and may include, but is not limited to: monitoring results, review of the operation and maintenance plan, procedures and records, and inspection of the facility.
(9 VAC 5-60-90, 40 CFR 63.342(f)(2))

9. J. W. Fergusson & Sons, Inc. shall prepare an operation and maintenance plan to be implemented no later than January 25, 1997. The plan is herein incorporated by reference into this Title V permit (see Appendix B to this permit). The plan shall include the following elements:

   a. The plan shall specify the operation and maintenance criteria for the chrome electroplating bath (EU ID #31), the composite mesh-pad system (PCD ID #03), and the process and control system monitoring equipment, and shall include a standardized checklist to document the operation and maintenance of this equipment;

   b. The plan shall incorporate the work practice standards as defined in Table 1:

Table 1: Composite Mesh-Pad System

Work Practice Standards	**Frequency**
Visually inspect device to ensure there is proper drainage, no chromic acid buildup on the pads, and no evidence of chemical attack on the structural integrity of the device.	1/quarter
Visually inspect back portion of the mesh pad closest to the fan to ensure that it is dry and there is no breakthrough of chromic acid mist.	1/quarter
Visually inspect ductwork from tank to the control device to ensure there are no leaks.	1/quarter
Perform washdown of the composite mesh-pads in accordance with the manufacturer's recommendations	Per manufacturer.

   c. The plan shall specify procedures to be followed to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur; and

   d. The plan shall include a systematic procedure for identifying malfunctions of process equipment, add-on air pollution control devices, and process and control system monitoring equipment and for implementing corrective actions to address such malfunctions.

(9 VAC 5-60-90, 40 CFR 63.342(f)(3)(i))

10. If the operation and maintenance plan contained in Appendix B to this permit fails to address or inadequately addresses an event that meets the characteristics of a malfunction, the permittee shall revise the operation and maintenance plan within 45 days after such an event occurs. The revised plan shall include procedures for operating and maintaining the process equipment, add-on air pollution control device, or monitoring equipment during similar malfunction events, and a program for corrective action for such events.
    (9 VAC 5-60-90, 40 CFR 63.342(f)(3)(ii))

11. Based on the results of a determination made under Condition IX.A.8, the Director, Piedmont Regional Office may require that the permittee make changes to the operation and maintenance plan contained in Appendix B to this permit, if it is found that the plan:

    a. Does not address a malfunction that has occurred;

    b. Fails to provide for the operation of the chrome electroplating bath (EU ID #31), composite mesh-pad system (PCD ID #03), or the control system and process monitoring equipment during a malfunction in a manner consistent with good air pollution control practices; or

    c. Does not provide adequate procedures for correcting malfunctioning process equipment, air pollution control techniques, or monitoring equipment as quickly as practicable.

    (9 VAC 5-60-90, 40 CFR 63.342(f)(2))

12. The facility shall be subject to the General Provisions (Subpart A) of 40 CFR 63 as outlined in the table below:

Table 1 to Subpart N of 40 CFR 63: General Provisions Applicability to Subpart N

Reference	Applies to Subpart N	Comment
63.1(a)(1)	Yes.	Additional terms defined in §63.341; when overlap between subparts A and N occurs, subpart N takes precedence.
63.1(a)(2)	Yes.	
63.1(a)(3)	Yes.	
63.1(a)(4)	Yes.	Subpart N clarifies the applicability of each paragraph in subpart A to sources subject to subpart N.
63.1(a)(6)	Yes.	
63.1(a)(7)	Yes.	
63.1(a)(8)	Yes.	
63.1(a)(10)	Yes.	
63.1(a)(11)	Yes.	§63.347(a) of subpart N also allows report

Reference	Applies to Subpart N	Comment
		submissions via fax and on electronic media.
63.1(a)(12)-(14)	Yes.	
63.1(b)(1)	No	§63.340 of subpart N specifies applicability.
63.1(b)(2)	Yes.	
63.1(b)(3)	No	This provision in subpart A is being deleted. Also, all affected area and major sources are subject to subpart N; there are no exemptions.
63.1(c)(1)	Yes.	Subpart N clarifies the applicability of each paragraph in subpart A to sources subject to subpart N.
63.1(c)(2)	Yes.	Subpart N specifies permit requirements for area sources.
63.1(c)(4)	Yes.	
63.1(c)(5)	No	Subpart N clarifies that an area source that becomes a major source is subject to the requirements for major sources.
63.1(e)	Yes.	
63.2.	Yes.	Additional terms defined in §63.341; when overlap between subparts A and N occurs, subpart N takes precedence.
63.3.	Yes.	Other units used in subpart N are defined in that subpart.
63.4.	Yes.	
63.5(a)	Yes.	Except replace the term "source" and "stationary source" in §63.5(a) (1) and (2) of subpart A with "affected sources."
63.5(b)(1)	Yes.	
63.5(b)(3)	Yes.	Applies only to major affected sources.
63.5(b)(4)	No	Subpart N (§63.345) specifies requirements for the notification of construction or reconstruction for affected sources that are not major.
63.5(b)(5)	Yes.	
63.5(b)(6)	Yes.	
63.5(d)(1)(i)	No	§63.345(c)(5) of subpart N specifies when the application or notification shall be submitted.
63.5(d)(1)(ii)	Yes.	Applies to major

Reference	Applies to Subpart N	Comment
		affected sources that are new or re-constructed.
63.5(d)(1)(iii)	Yes.	Except information should be submitted with the Notification of Compliance Status required by §63.347(e) of subpart N.
63.5(d)(2)	Yes.	Applies to major affected sources that are new or re-constructed except: (1) replace "source" in §63.5(d)(2) of sub-part A with "affected source"; and (2) actual control efficiencies are submitted with the Notification of Compliance Status required by § 63.347(e)
63.5(d)(3)-(4)	Yes.	Applies to major affected sources that are new or re-constructed.
63.5(e)	Yes.	Applies to major affected sources that are new or re-constructed.
63.5(f)(1)	Yes.	Except replace "source" in §63.5(f)(1) of sub-part A with "affected source."
63.5(f)(2)	No	New or reconstructed affected sources shall submit the request for approval of con-struction or recon-struction under § 63.5(f) of subpart A by the deadline specified in § 63.345(c)(5) of subpart N.
63.6(a)	Yes.	
63.6(b)(1)-(2)	Yes.	Except replace "source" in § 63.6(b)(1)-(2) of part A with "affected source."
63.6(b)(3)-(4)	Yes.	
63.6(b)(5)	Yes.	Except replace "source" in §63.6(b)(5) of sub-part A with "affected source."
63.6(b)(7)	No	Provisions for new area sources that become major sources are con-tained in §63.343(a)(4) of subpart N.
63.6(c)(1)-(2)	Yes.	Except replace "source" in § 63.6(c)(1)-(2) of subpart A with "af-fected source."
63.6(c)(5)	No	Compliance provisions

Reference	Applies to Subpart N	Comment
		for existing area sources that become major sources are contained in §63.343(a)(3) of subpart N.
63.6(e)	No	§63.342(f) of subpart N contains work practice standards (operation and maintenance requirements) that override these provisions.
63.6(f)(1)	No	§63.342(b) of subpart N specifies when the standards apply.
63.6(f)(2)(i)-(ii)	Yes.	
63.6(f)(2)(iii)	No	§63.344(b) of subpart N specifies instances in which previous performance test results for existing sources are acceptable.
63.6(f)(2)(iv)	Yes.	
63.6(f)(2)(v)	Yes.	
63.6(f)(3)	Yes.	
63.6(g)	Yes.	
63.6(h)	No	Subpart N does not contain any opacity or visible emission standards.
63.6(i)(1)	Yes.	
63.6(i)(2)	Yes.	Except replace "source" in §63.6(i)(2)(i) and (ii) of subpart A with "affected source."
63.6(i)(3)	Yes.	
63.6(i)(4)(i)	No	§63.343(a)(6) of subpart N specifies the procedures for obtaining an extension of compliance and the date by which such requests must be submitted.
63.6(i)(4)(ii)	Yes.	
63.6(i)(5)	Yes.	
63.6(i)(6)(i)	Yes.	This paragraph only references "paragraph (i)(4) of this section" for compliance extension provisions. But, § 63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.
63.6(i)(6)(ii)	Yes.	
63.6(i)(7)	Yes.	
63.6(i)(8)	Yes.	This paragraph only references "paragraphs (i)(4) through (i)(6) of this section" for compliance extension provisions. But, § 63.343(a)(6) of sub-

Reference	Applies to Subpart N	Comment
		part N also contains provisions for requesting a compliance extension.
63.6(i)(9)	Yes.	This paragraph only references "paragraphs (i)(4) through (i)(6) of this section" and "paragraphs (i)(4) and (i)(5) of this section" for compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.
63.6(i)(10)(i)-(iv)	Yes.	
63.6(i)(10)(v)(A)	Yes.	This paragraph only references `'paragraph (i)(4)" for compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.
63.6(i)(10)(v)(B)	Yes.	
63.6(i)(11)	Yes.	
63.6(i)(12)(i)	Yes.	This paragraph only references "paragraph (i)(4)(i) or (i)(5) of this section" for compliance extension provisions. But, § 63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.
63.6(i)(12)(ii)-(iii)	Yes.	
63.6(i)(13)	Yes.	
63.6(i)(14)	Yes.	
63.6(i)(16)	Yes.	
63.6(j)	Yes.	
63.7(a)(1)	Yes.	
63.7(a)(2)(i)-(vi)	Yes.	
63.7(a)(2)(ix)	Yes.	
63.7(a)(3)	Yes.	
63.7(b)(1)	No	§63.347(d) of subpart N requires notification prior to the performance test. §63.344(a) of subpart N requires submission of a site-specific test plan upon request.
63.7(b)(2)	Yes.	
63.7(c)	No	§63.344(a) of subpart N specifies what the test plan should contain, but does not require test plan approval or performance audit

Reference	Applies to Subpart N	Comment
		samples.
63.7(d)	Yes.	Except replace "source" in the first sentence of § 63.7(d) of subpart A with "affected source."
63.7(e)	Yes.	Subpart N also contains test methods specific to affected sources covered by that subpart.
63.7(f)	Yes.	§63.344(c)(2) of subpart N identifies CARB Method 425 as acceptable under certain conditions.
63.7(g)(1)	No	Subpart N identifies the items to be reported in the compliance test [§63.344(a)] and the timeframe for submitting the results [§63.347(f)].
63.7(g)(3)	Yes.	
63.7(h)(1)-(2)	Yes.	
63.7(h)(3)(i)	Yes.	This paragraph only references " § 63.6(i)" for compliance extension provisions. But, § 63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension.
63.7(h)(3)(ii)-(iii)	Yes.	
63.7(h)(4)-(5)	Yes.	
63.8(a)(1)	Yes.	
63.8(a)(2)	No	Work practice standards are contained in § 63.342(f) of subpart N.
63.8(a)(4)	No	
63.8(b)(1)	Yes.	
63.8(b)(2)	No	§63.344(d) of subpart N specifies the monitoring location when there are multiple sources.
63.8(b)(3)	No	§63.347(g)(4) of subpart N identifies reporting requirements when multiple monitors are used.
63.8(c)(1)(i)	No	Subpart N requires proper maintenance of monitoring devices expected to be used by sources subject to subpart N.
63.8(c)(1)(ii)	No	§63.342(f)(3)(iv) of subpart N specifies reporting when the O & M plan is not followed. |

Reference	Applies to Subpart N	Comment
63.8(c)(1)(iii)	No	§63.343(f)(2) identifies the criteria for whether O & M procedures are acceptable.
63.8(c)(2)-(3)	No	§63.344(d)(2) requires appropriate use of monitoring devices.
63.8(c)(4)-(7)	No	
63.8(d)	No	Maintenance of monitoring devices is required by §§63.342(f) and 63.344(d)(2) of subpart N.
63.8(e)	No	There are no performance evaluation procedures for the monitoring devices expected to be used to comply with subpart N.
63.8(f)(1)	Yes.	
63.8(f)(2)	No	Instances in which the Administrator may approve alternatives to the monitoring methods and procedures of subpart N are contained in §63.343(c)(8) of subpart N.
63.8(f)(3)	Yes.	
63.8(f)(4)	Yes.	
63.8(f)(5)	Yes.	
63.8(f)(6)	No	Subpart N does not require the use of CEM's.
63.8(g)	No	Monitoring data does not need to be reduced for reporting purposes because subpart N requires measurement once/day.
63.9(a)	Yes.	
63.9(b)(1)(i)-(ii)	No	§63.343(a)(3) of subpart N requires area sources to comply with major source provisions if an increase in HAP emissions causes them to become major sources.
63.9(b)(1)(iii)	No	§63.347(c)(2) of subpart N specifies initial notification requirements for new or reconstructed affected sources.
63.9(b)(2)	No	§63.347(c)(1) of subpart N specifies the information to be contained in the initial notification.
63.9(b)(3)	No	§63.347(c)(2) of subpart N specifies notification requirements for new or

Reference	Applies to Subpart N	Comment
		reconstructed sources that are not major affected sources.
63.9(b)(4)	No	
63.9(b)(5)	No	
63.9(c)	Yes.	This paragraph only references "§ 63.6(i)(4) through §63.6(i)(6)" for compliance extension provisions. But, §63.343(a)(6) of subpart N also contains provisions for requesting a compliance extension. Subpart N provides a different timeframe for submitting the request than § 63.6(i)(4)
63.9(d)	Yes.	This paragraph only references "the notification dates established in paragraph (g) of this section." But, §63.347 of subpart N also contains notification dates.
63.9(e)	No	Notification of performance test is required by § 63.347(d) of subpart N.
63.9(f)	No	
63.9(g)	No	Subpart N does not require a performance evaluation or relative accuracy test for monitoring devices.
63.9(h)(1)-(3)	No	§63.347(e) of subpart N specifies information to be contained in the notification of compliance status and the timeframe for submitting this information.
63.9(h)(5)	No	Similar language has been incorporated into § 63.347(e)(2)(iii) of subpart N.
63.9(h)(6)	Yes.	
63.9(i)	Yes.	
63.9(j)	Yes.	
63.10(a)	Yes.	
63.10(b)(1)	Yes.	
63.10(b)(2)	No	§63.346(b) of subpart N specifies the records that must be maintained.
63.10(b)(3)	No	Subpart N applies to major and area sources.
63.10(c)	No	Applicable requirements of §63.10(c) have been incorporated into

Reference	Applies to Subpart N	Comment
		§63.346(b) of subpart N.
63.10(d)(1)	Yes.	
63.10(d)(2)	No	§63.347(f) of subpart N specifies the timeframe for reporting performance test results.
63.10(d)(3)	No	Subpart N does not contain opacity or visible emissions standards.
63.10(d)(4)	Yes.	
63.10(d)(5)	No	§63.342(f)(3)(iv) and § 63.347(g)(3) of subpart N specify reporting associated with malfunctions.
63.10(e)	No	§63.347(g) and (h) of subpart N specify the frequency of periodic reports of monitoring data used to establish compliance. Applicable requirements of §63.10(e) have been incorporated into §63.347(g) and (h)
63.10(f)	Yes.	
63.11	No	Flares will not be used to comply with the emission limits.
63.12-63.15	Yes.	

(9 VAC 5-60-90)

B. Monitoring

1. The permittee shall monitor and record the pressure drop across the composite mesh-pad system (control device #03) once each day that the chrome plating bath is operating. To be in compliance with the standards, the composite mesh-pad system shall be operated within ±1 inch of water column of the pressure drop established during the initial performance test, or within the range of compliant values for pressure drop established during multiple performance tests.
   (9 VAC 5-60-90, 40 CFR 63.343(c)(1)(ii))

2. The monitoring devices shall be installed such that representative measurements of the pressure drop across the mesh-pad system are obtained. Verification of the operational status of the device shall include execution of the manufacturer's written specifications or recommendations for installation, operation, and calibration of the system. Specifications shall be in accordance with manufacturer's accuracy specifications.
   (9 VAC 560-90, 40 CFR 63.344(d)(2))

3. Pressure taps shall be installed at the inlet and outlet of the control system. The inlet tap should be installed in the ductwork just prior to the composite mesh-pad system and the

corresponding outlet pressure tap should be installed on the outlet side prior to the blower or on the downstream side of the blower.
(9 VAC 5-60-90, 40 CFR 63.344(d)(5)(i)(A))

4. Pressure taps shall be sited at locations that are:

   a. Free from pluggage as possible and away from any flow disturbances such as cyclonic demisters.

   b. Situated such that no air infiltration at the measurement site will occur that could bias the measurement.

   (9 VAC 5-60-90, 40 CFR 63.344(d)(5)(ii))

5. Pressure taps shall be constructed of either polyethylene, polybutylene, or other nonreactive materials.
   (9 VAC 5-60-90, 40 CFR 63.344(d)(5)(iii)

6. Any of the following pressure gauges can be used to monitor pressure drop: a magnahelic gauge, an inclined manometer, or a “U” tub manometer.
   (9 VAC 5-60-90, 40 CFR 63.344(d)(5)(v))

7. Prior to connecting any pressure lines to the pressure gauges, each gauge should be zeroed. No calibration of the pressure gauges is required.
   (9 VAC 5-60-90, 40 CFR 63.344(d)(5)(vi))

8. The permittee shall keep the written operation and maintenance plan (Appendix B to this permit) on record after it is developed to be made available for inspection, upon request, by the Director, Piedmont Regional Office. In addition, if the operation and maintenance plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the operation and maintenance plan on record to be made available for the inspection, upon request, by the Director, Piedmont Regional Office for a period of 5 years after each revision to the plan.
   (9 VAC 5-60-90, 40 CFR 63.342(f)(3)(v))

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrated compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

1. Inspection records for the composite mesh-pad system and monitoring equipment to document that the inspection and maintenance required by the work practice standards and Condition X.A.9 Table 1 have taken place. The record can take the form of a checklist and should identify the device inspected, the date of inspection, a brief description of the working condition of the device during the inspection, and any actions taken to correct deficiencies found during the inspection.

2. Records of all maintenance performed on the chrome plating bath, composite mesh-pad system (PCD ID #03), and monitoring equipment.

3. Records of the occurrence, duration, and cause (if known) of each malfunction of the process, air pollution control equipment, and monitoring equipment.

4. Records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan (Appendix B to this permit).

5. Other records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the operation and maintenance plan required by Condition IX.A.9.

6. Test reports documenting results of all performance tests.

7. All measurements as may be necessary to determine the conditions during performance tests.

8. Records of inlet velocity pressure and pressure drop across the composite mesh-pad system taken once each day while the chrome plating bath (EU ID #31) is operating, including the date and time the data is collected.

9. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by the pressure drop across the composite mesh-pad system, that occurs during malfunction of the process, the composite mesh-pad system, or the monitoring equipment.

10. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by the pressure drop across the composite mesh-pad system, that occurs during periods other than malfunction of the process, the composite mesh-pad system, or monitoring equipment.

11. The total process operating time of the chrome plating bath (EU ID #31) during the reporting period.

12. All documentation supporting the notifications and reports required by 40 CFR 63.9, 40 CFR 63.10, and 40 CFR 63.347.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-60-90, 9 VAC 5-80-110, 40 CFR 63.346(b), 40 CFR 63.346(c))

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports will be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)

2. Method 306 or Method 306A "Determination of Chromium Emissions from Decorative and Hard Chromium Electroplating and Anodizing Operations," Appendix A of 40 CFR 63 shall be used to determine the chromium concentration from hard electroplating tanks or chromium anodizing tanks. The sampling time and sample volume for each run of Methods 306 and 306A, Appendix A of 40 CFR 63 shall be at least 120 minutes and 60 dscf respectively. Methods 306 and 306A, Appendix A of 40 CFR 63 allow the measurement of either total chromium or hexavalent chromium emissions. The hexavalent chromium concentration measured by these methods is equal to the total chromium concentration for the chrome plating tank (EU ID #31).
(9 VAC 5-60-90, 40 CFR 63.344(c)(1))

E. Reporting

1. If actions taken by the permittee during periods of malfunction are inconsistent with the procedures specified in the operation and maintenance plan contained in Appendix B to this permit, J. W. Fergusson & Sons shall record the actions taken for that event and shall report by phone such actions within 2 working days after commencing actions consistent with the plan. This report shall be followed by a letter within 7 working days after the end of the event.
(9 VAC 5-60-90, 40 CFR 63.342(f)(3)(iv)

2. The permittee shall submit a summary report to the Director, Piedmont Regional Office and to EPA Region III to document the ongoing compliance status of the chrome plating bath (EU ID #31). The report shall contain the information identified in Condition IX.C.3 below and shall be submitted semi-annually, except when:

   a. The Director, Piedmont Regional Office determines that more frequent reporting is necessary to accurately assess the compliance status, or

   b. The monitoring data collected by the permittee shows that the emission limit has been exceeded, in which case quarterly reports shall be submitted. Once the permittee reports and exceedance, ongoing compliance status reports shall be submitted quarterly until a request to reduce reporting frequency is approved.

   (9 VAC 5-60-90, 40 CFR 63.347(g)(3))

3. The compliance status report shall contain the following information:

   a. The company name and address.

   b. An identification of the operating parameter that is monitored for compliance determination, in this case pressure drop across the mesh pad control system.

c. The emission limitation for the chrome electroplating unit (EU ID#31), and the pressure drop values that correspond to compliance with the emission limitation.

d. The beginning and ending dates of the reporting period.

e. A description of the type of process performed.

f. The total operating time of the chrome electroplating unit (EU ID #31) during the reporting period.

g. A summary of operating parameter values, including the total duration of excess emissions during the reporting period as indicated by those values, the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to process upsets, control equipment malfunctions, other known causes, and unknown causes.

h. A certification by a responsible office that the work practice standards were followed in accordance with the operation and maintenance plan for the source (Appendix B to this permit).

i. If the operation and maintenance plan (Appendix B to this permit) was not followed, an explanation of the reasons for not following the provisions, an assessment of whether any excess emission and/or parameter monitoring exceedances are believed to have occurred, and a copy of the reports documenting that the operation and maintenance plan was not followed.

j. A description of any changes in monitoring, processes, or controls since the last reporting period.

k. The name, title, and signature of the responsible official who is certifying the accuracy of the report, and

l. The name of the report.

(9 VAC 5-60-90, 40 CFR 63.347(g)(3))

X. Facility Wide Conditions

A. Limitations

1. Unless specified otherwise in this part no owner or other person shall cause or permit to be discharged into the atmosphere from any affected facility any visible emissions which exhibit greater than 20% opacity, except for one six-minute period in any one hour of not more than 30% opacity. Failure to meet the requirements of this section because of the presence of water vapor shall not be a violation of this section.
(9 VAC 5-50-80)

2. VOC emissions from the operation of the rotogravure packaging printing facility shall not exceed either 7,500 lbs/day (average of monthly records) or 561.0 tons/yr (annual average, calculated as the sum over the previous consecutive 12 months).
(9 VAC 5-50-260, Condition 9 of NSR permit dated 10/29/99)

3. At all times, J. W. Fergusson shall take measures to minimize fugitive VOC emissions to the extent practicable, consistent with air pollution control practices for minimizing emissions:

   a. Volatile organic compounds shall not be disposed of by being intentionally spilled, being discarded in sewers which are not connected to a treatment plant, or being stored in open containers or handled in any other manner that would result in evaporation beyond that consistent with air pollution control practices for minimizing emissions.

   b. Fugitive VOC emissions shall be minimized by covering all ink kits, ink reservoirs, and solvent drums to the fullest extent practicable.

   c. Water-based detergents shall be used in lieu of solvent for the washing of floors outside permanent total enclosures where practicable.

   d. Waste ink and solvents shall be stored in closed containers.

   e. Cloths, sponges, brushes and other tools which have been used for cleaning with solvents shall be stored, and disposed of, in a manner consistent with minimizing VOC emissions.

   (9 VAC 5-80-10 H, 9 VAC 5-40-4330 and 9 VAC 5-50-20 F, Condition 33 of NSR permit dated 10/29/99)

B. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrated compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Region. These records shall include, but are not limited to:

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content of and format of such records shall be arranged with the Director, Piedmont Regional Office. These records shall include, but are not limited to:

   a. A plant-wide total of daily and annual VOC emissions;

   These records shall be availalable on site for inspection by the DEQ and shall be current for the most recent five (5) years
   (9 VAC 5-50-50, 40 CFR 63.829(d), Condition 34 of NSR permit issued 10/29/99)

2. The permittee shall maintain on site current Material Safety Data Sheets (MSDS) for each ink, surface coating, solvent and/or press cleaner used in the facility's press operations. At minimum, these MSDS shall contain the following: each product's VOC content, by weight, and density/specific gravity.
   (9 VAC 5-50-50)

3. J. W. Fergusson & Sons, Inc. Shall develop, maintain, and have available to all operators good written operating procedures for all air pollution control equipment. A maintenance schedule for all such equipment shall be established and made available to the Department (Director, Piedmont Regional Office) for review. Records of service and maintenance shall be maintained on file by the source for the most recent two-year period.
   (9 VAC 5-80-110)

4. All air pollution control equipment operators shall be trained and certified in the proper operation of all such equipment. J. W. Fergusson & Sons, Incorporated shall maintain records of the required training and certification. Certification of training shall consist of a time, place, and nature of training provided.
   (9 VAC 5-80-110)

XI. Insignificant Emission Units

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (5-80-720 B)	Rated Capacity (5-80-720 C)
12	Ink & Solvent Storage and Mixing	5-80-720 B.	VOC	N/A
13	Recovered Solvent Storage Tank	5-80-720 B.	VOC	10,000 gallons
14	Isopropyl Acetate Storage Tank	5-80-720 B.	VOC	8000 gallons
23	Weil-McLain Natural Gas Boiler Model 688 (space heat)	5-80-720 B.	N/A	1.4 MMBtu/hr heat input

These emission units are presumed to be in compliance with all requirements of the federal Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping, or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

XII. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of applicability
40 CFR 60.430 through 40 CFR 60.435 (NSPS Subpart QQ)	New Source Performance Standards for the Graphic Arts Industry: Publication Rotogravure Printing	Publication rotogravure printing presses, except proof presses
40 CFR 63.460 through 40 CFR 63.469 (Subpart T)	Halogenated Solvent Cleaning	Each individual batch vapor, in-line vapor, in-line cold, and batch cold solvent cleaning machine that uses any solvent containing greater than 5% methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, or chloroform

Nothing in this permit shield shall alter the provisions of § 303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to § 114 of the federal Clean Air Act, (ii) the Board pursuant to § 10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to § 10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

XIII. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable. (9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless a timely and complete renewal application consistent, with 9 VAC 5-80-80, has been submitted, to the Department, by the owner, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.

2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.

3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.

4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.

5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

   (9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:

   a. The date, place as defined in the permit, and time of sampling or measurements.

   b. The date(s) analyses were performed.

c. The company or entity that performed the analyses.

d. The analytical techniques or methods used.

e. The results of such analyses.

f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
(9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than [**March 1** and **September 1**] of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.

b. All deviations from permit requirements. For purposes of this permit, a deviation means any condition determined by observation, data from any monitoring protocol or any other monitoring which is required by the permit that can be used to determine compliance. Deviations include exceedances documented by continuous emission monitoring or excursions from control performance indicators documented through periodic or compliance assurance monitoring.

(9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to § 114(a)(3) and § 504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.

2. A description of the means for assessing or monitoring the compliance of the source with its emissions limitations, standards, and work practices.

3. The identification of each term or condition of the permit that is the basis of the certification.

4. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the certification period.

5. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.

6. The status of compliance with the terms and conditions of this permit for the certification period.

7. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)
U.S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

The permittee shall report by the next business day any deviations from permit requirements or any excess emissions, including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventive measures taken.
(9 VAC 5-80-110 F.2)

F. Failure/Malfunction Reporting

In the event that any affected facility or related air pollution control equipment fails or malfunctions in such a manner that may cause excess emissions for more than one hour, the owner shall, as soon as practicable but no later than four daytime business hours, notify the Director, Piedmont Region by facsimile transmission, telephone or telegraph of such failure or malfunction and shall within two weeks provide a written statement giving all pertinent facts, including the estimated duration of the breakdown. Owners subject to the requirements of 9 VAC 5-40-50 C and 9 VAC 5-50-50 C are not required to provide the written statement prescribed in this paragraph for facilities subject to the monitoring requirements of 9 VAC 5-40-40 and 9 VAC 5-50-40. When the condition causing the failure or malfunction has been corrected and the equipment is again in operation, the owner shall notify the Director, Piedmont Region.

1. The emission units that have continuous monitors subject to 9 VAC 5-50-50 C are not subject to the two week written notification.

2. The emission units subject to the reporting and the procedure requirements procedures of 9 VAC 5-50-50 C are listed below:

   a. Rotogravure presses No. 1 & 2 and floor washing (EU ID #01, 02, and 08)
   b. Rotogravure presses No. 3, 4, 5, and 6 and floor washing (EU ID #03-06, 09)

3. Each owner required to install a continuous monitoring system subject to 9 VAC 5-40-41 or 9 VAC 5-50-410 shall submit a written report of excess emissions (as defined in the applicable emission standard) to the board for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter and shall include the following information:

   a. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h) or 9 VAC 5-40-41 B 6, any conversion factors used, and the date and time of commencement and completion of each period of excess emissions;

   b. Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the source. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted;

   c. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments; and

   d. When no excess emissions have occurred or the continuous monitoring systems have not been inoperative, repaired or adjusted, such information shall be stated in the report.

4. All emission units not subject to 9 VAC 5-50-50 C must make written reports within two weeks of the malfunction occurrence.

   (9 VAC 5-20-180 C and 9 VAC 5-50-50)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
(9 VAC 5-80-110 G.3)

J. Permit Action for Cause

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause as specified in 9 VAC 5-80-110 L, 9 VAC 5-80-240 and 9 VAC 5-80-260. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.
(9 VAC 5-80-110 G.4)

2. Such changes that may require a permit modification and/or revisions include, but are not limited to, the following:

   a. Erection, fabrication, installation, addition, or modification of an emissions unit (which is the source, or part of it, which emits or has the potential to emit any regulated air pollutant), or of a source, where there is, or there is the potential of, a resulting emissions increase;

   b. Reconstruction or replacement of any emissions unit or components thereof such that its capital cost exceeds 50% of the cost of a whole new unit;

   c. Any change at a source which causes emission of a pollutant not previously emitted, an increase in emissions, production, throughput, hours of operation, or fuel use greater than those allowed by the permit, or by 9 VAC 5-80-11, unless such an increase is authorized by an emission cap; or any change at a source which causes an increase in emissions resulting from a reduction in control efficiency, unless such an increase is authorized by an emissions cap;

   d. Any reduction of the height of a stack or of a point of emissions, or the addition of any obstruction which hinders the vertical motion of exhaust;

   e. Any change at the source which affects its compliance with conditions in this permit, including conditions relating to monitoring, recordkeeping, and reporting;

   f. Addition of an emissions unit which qualifies as insignificant by emissions rate (9 VAC 5-80-720 B) or by size or production rate (9 VAC 5-80-720 C);

   g. Any change in insignificant activities, as defined by 9 VAC 5-80-90 D.1.a(1) and by 9 VAC 5-80-720 B and 9 VAC 5-80-720 C.

(9 VAC 5-80-110 G, 9 VAC 5-80-110 J, 9 VAC 5-80-240, and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege.
(9 VAC 5-80-110 G.5)

L. Duty to Submit Information

1. The permittee shall furnish to the board, within a reasonable time, any information that the board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the board along with a claim of confidentiality.
(9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.
(9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-305 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-355.
(9 VAC 5-80-110 H)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited, to the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;

2. Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;

3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;

4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and

5. The prompt removal of spilled or traced dirt or other materials from paved streets and of dried sediments resulting from soil erosion.

(9 VAC 5-50-50)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the board, which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
(9 VAC 5-50-20)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80 Article 1.
(9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.

2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.

3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.

4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the board if additional federal requirements become applicable to a major source with a remaining permit term of three or more years. Such a

reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

2. The permit shall be reopened if the administrator or the board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

3. The permit shall not be reopened by the board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.
(9 VAC 5-80-150 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)

2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the requirements of paragraph 2 of this condition are met.

2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:

   a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.

   b. The permitted facility was at the time being properly operated.

   c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.

   d. The permittee notified the board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F 2 b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.

   e. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any requirement applicable to the source.

   f. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.

(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The board may suspend, under such conditions and for such period of time as the board may prescribe, any permit for any of the grounds for revocation or termination or for any other violations of these regulations.
(9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any requirements that become

applicable to the source after the date a complete application was filed but prior to release of a draft permit.
(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substance subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.
(40 CFR Part 82, Subparts A - F)

Y. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.
(40 CFR Part 68)

Z. Changes to Permits for Emissions Trading

No permit revision shall be required, under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.
(9 VAC 5-80-110 I)

AA. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110 except subsection N shall be included to determine compliance.

2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.

3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)

XIV. State-Only Enforceable Requirements

The following terms and conditions are not required under the federal Clean Air Act or under any of its applicable federal requirements, and are not subject to the requirements of 9 VAC 5-80-290 concerning review of proposed permits by EPA and draft permits by affected states.

1. The total emission rate of the following hazardous air pollutants emitted from the facility, as listed in the permit application, is limited to 7,500 lbs/day (average of monthly records, including fugitives):

    - Toluene
    - Methyl Ethyl Ketone

    (9 VAC 5-50-160, Condition 10 of NSR permit dated 10/29/99)

2. The following hazardous air pollutants emitted from the facility, as listed in the permit application, is limited to 3,750 lbs/day (average of monthly records, including fugitives):

    - Hexane (any isomer)

    (9 VAC 5-50-160, Condition 11 of NSR permit dated 10/29/99)

3. The permittee shall maintain on site current Material Safety Data Sheets (MSDS) for each ink, surface coating, solvent and/or press cleaner used in the facility's press operations. These MSDS shall contain the hazardous air pollutant content, by weight, and may be used to demonstrate compliance with Conditions 1 and 2.
   (9 VAC 5-50-50)